Environmental Education and Communication (EE&C) Assessment for Madagascar

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EXECUTIVE SUMMARY

Between June 5 and 26, 1994, Dr. Richard Grieser, consultant from Global Vision, Inc., to the GreenCOM project, was in Madagascar to execute an environment education and communication assessment for GreenCOM, under an agreement with the Global Bureau/AFR/ARTS/FARA. GreenCOM has produced five such assessments.

A short study was conducted to obtain information on organizations and resources for Environmental Education and Communication (EE&C), and to identify possible strategies for future EE&C initiatives. The purpose of the study was to assist the USAID/Madagascar Natural Resource Office to take appropriate initiatives towards fulfillment of the Environmental Education and Communication objectives of the Environmental Action Plan (EAP), USAID Africa Bureau and USAID Environmental Natural Resource Policy and Objectives (Washington, DC).

Site visits to headquarters and to field offices of organizations and agencies engaged in environmental education were made to interview those who are planning or implementing the work, and when possible, to speak with those who are the recipients.

Because of the accelerated pace and shortness of time in doing this assessment, it is possible that some incorrect assumptions have been made, although the author made every effort to double check the information. The author apologizes in advance for any misrepresentations as a result. This study, while it seeks to discern lessons learned, is primarily concerned with gaps in EE&C activities and constraints. This emphasis tends to highlight shortcomings. The achievements, hard work, and dedication of those involved in implementing the Mission's projects cannot be overemphasized. In a sense, it is precisely because of their success that contrasts with EE&C shortcomings become magnified.

The major findings were:

1. While there has been a great deal of effort in pursuing Environmental Education and Communication (EE&C) activities under Madagascar's Environmental Action Plan (EAP) particularly in the formal sector, there has not been much success in creating a constituency for the environment. Many of the operators, organizations responsible for implementing ICDPs (projects that integrate conservation and development), constantly hear the complaint,"Why do you prefer lemurs to people?" Malagasy people, government agencies, cadres, or NGOs, often expressed their displeasure at the weight and importance given to the environment. There is the impression among Malagasy government officials and other that so much money is going into the environment that many Malagasy are beginning to view environmental efforts as benefitting the donors, a sort of "state within a state". There is such limited activity in EE&C that the general public is virtually unaware of the many development activities taking place that directly benefit people. A large number of Government officials in the Third Republic (the newly formed Government) did not participate in the formulation of the EAP (Environmental Action Plan) and therefore feel little ownership. As a result of the lack of a clear constituency, misconceptions and

resentments have built up. One possibility is to use conflict resolution techniques as mentioned in the Grimm and Byers report. At least two heads of PVOs (Private Voluntary Organizations) also suggested the dynamics of the current situation called for more formal problem solving approaches such as conflict resolution. In general,the Environmental Program in Madagascar suffers a credibility problem. A recent SAVEM evaluation team (June 1994) recommended that one of the pressing priorities for their project was the need for EE&C expertise so that they could start to effectively reach the Malagasy public with relevant environmental education messages. The USAID mission feels the same way, but without the support to back up a significant effort in EE&C, this opportunity will be lost.

It would behoove SAVEM and KEPEM, and individual operators, to hold workshops that would develop a long-range vision of EE&C within their various organizations. This long-range vision can then be operationalized into a strategic plan which would allow the agencies to determine their personnel needs, the skill mix of those personnel and training shortfalls, the budget necessary to accomplish their activities. It would allow ANGAP and ONE to determine with greater clarity the kind of support they need to offer their clients (the operators of protected areas) and will allow for a commonality of purpose so that competition amongst PVOs can be eliminated as well as competition between PVOs and their managing agencies.

2. With a few exceptions, there seems to be little evidence that the projects use traditional systems of decision making or behavior change as a medium in which they operate (see annex for a discussion of traditional Malagasy culture). Traditional systems are often bypassed in favor of parallel, newly created systems. Social science research used by projects is still limited and very Western biased. The context in which environmental education is taking place is not being adequately considered as an ally for constructive change. The Malagasy context provides a real potential as a potent force for change because there is only one language in Madagascar (Malagasy with French as the business language), and because there is a pervasive, traditional, national, Malagasy culture, although within the Malagasy culture there are variations.

3. One area where there is a great deal of activity is in the formal school system. Eight donors are currently funding projects (in environment) with the Ministry of Education. USAID is not directly involved in the formal education sector. There is a serious lack of coordination and priority-setting in the area of environmental education, yet there is ample opportunity to have an impact on environmental education in the formal system at this precise moment in Madagascar's development. Field practitioners have complained that the materials produced for schools are too theoretical and need adaptation to local situations. A practical guide for teachers and extensive training in practical pedagogical methods in support of classroom theory, and production of auxiliary school-based materials (e.g. comic books) would be well received.

4. There has been little attempt to train local groups to manage their own resources, and there have been PRAs (Participatory Rural Appraisals) used as a sensitization tool. Without this capacity building at the central or local level, the likelihood of the PVOs ever moving out becomes highly improbable. The current USAID supported-system

encourages dependency by Government and local populations. Compensation for local populations has come in the form of project-provided health care (Ranomafana), education and sometimes family planning (Ranomafana and World Wildlife Fund {WWF}). CARE, as a development organization, rather than an environmental organization, is making an effort to get greater collaboration from its local populations under an European Community grant.

5. Capacity building for EE&C in Madagascar is more complex than in most countries. USAID Madagascar's programs are all being implemented by external, international PVOs. These external PVOs do not possess the communication expertise to implement communication activities even in their own projects. They are, for the most part, working without the assistance of local NGOs in implementation. ANGAP (National Association for the Management of Protected Areas)and ONE (National Environmental Office) were established as facilitating and coordinating agencies, but ANGAP in particular is now initiating/implementing activities and needs to work with and assist the international agencies it serves in the area of communication. It has recently acquired a video system and has established its own plans for using the system to promote the environment.

   There are, however, no EE&C specialists at ANGAP, only technicians. The dilemma for any potential EE&C strategy is that there are no easily identifiable indigenous groups, government or private, to whom communication skills can be taught and institutionalized that are working with USAID. If one works with ANGAP, other than the two or three staff members based at ANGAP, communication partners for an EE&C training strategy would come from CARE, VITA, CI (Conservation International), or WWF (World Wildlife Fund) International. While the individual staff members of these PVOs may be local citizens, the agencies are not, and sustainability is not assured. A few private production agencies do exist and could be further encouraged. Private delivery agencies such as private radio stations, and video houses also exist and could be used.

6. At present, there needs to be a wider range of involvement from different disciplines and sectors and a wider collaboration between and among sectors in order to deal with the complexities of social systems, the interlinkages between gender and management of natural resources, and the dynamics of environmental change. This finding concurs with a recommendation from the Grimm and Byers report on the SAVEM project that long-term, cross-sectoral strategic planning is indispensable for conservation and development to be sustainable. Given the urgency of problems and the newness of the projects in conservation and development, this lack of vision and the resulting lack of long-term, cross-sectoral strategic planning is certainly understandable; nonetheless, Grimm and Byers state that this approach (lack of long-term, cross-sectoral planning) will not result in sustainable development.

7. In the EE&C efforts, there needs to be more of a gender focus, that is, a focus on the roles, responsibilities, and access to resources, control, and decision making of both men and women. There is a pervasive assumption that since Madagascar is a matriarchal society, gender is not as important as in other areas of the world such as Africa. In fact, women's status in Madagascar is not the same as men's; the condition and situation of

women in Madagascar is similar to everywhere else in the world. This is more important for the poor and for development efforts that are aimed at the poor. The "invisible hand" (the market) is not always gender neutral; *all other things being equal*, it is assumed that the market is the best allocator of resources. More accent on gender would significantly improve economic analysis and lead to more sustainable ICDP projects.

8. As a result of the years of long term PVO and contractor expatriate technical assistance, there is a reluctance for any single institution to accept long term (LT) assistance. Unfortunately, the need for LT assistance in communication is particularly acute.

9. There is a lack of understanding of what communication is; as practiced in Madagascar, communication is product-oriented, not process-oriented. One of the main reasons is that practitioners have only had on-the-job training. There are no trained communicators. The closest to it are those who have had technical training in video and/or computers. There is no application of social science research (for example, no focus groups have been done, no understanding of audience research and audience segmentation). In essence, what has been done, if anything at all, is slogans, poster production, and the like.

INDICATORS	1993	1991	LOW-INCOME COUNTRIES
GNP per capita	$210	$230	$300
Average annual growth rate	-2.5		1.4% 3.4%
Average inflation rate	16.8	17.8%	14.9%
Life expectancy at birth	51	51	55
Adult illiteracy	27% female 20% total	67%	49%
Fertilizer consumption (100 grams/ha of arable land)	N/A	61 21	72 310
Average index of food production per capita (1979/81 = 100), for 1987-89	N/A	93	103
Private consumption, average annual growth rate, 1980–89	N/A	-0.6%	2.2%
Gross domestic investment, average annual growth rate, 1980–89	N/A	0.1%	1.5%
Official development assistance, as percentage of GNP, 1989	N/A	12.6%	5.6%
Total debt service as a percentage of exports	57.6	52%	27%
Population, average annual growth rate	3.0	2.9%	2.7%
Percentage of population, 0–14 years	45.1	46.2%	43.3%
Total fertility rate	6.2	6.5	5.5
Infant mortality rate	114	125	94
Under-five mortality rate (per 1000) female male	N/A	 162 180	 134 145
Primary school enrollment rate female	92%	97% 95%	75% 68%
Secondary school enrollment rate female	19	19% 19%	25% 20%
Urban population as a percentage of total pop'n	25%	24%	25%

ACRONYMS

AF	AgroForesters
AED	Academy for Educational Development
ANAE	National Association for Environmental Actions
ANGAP	National Association for the Management of Protected Areas
APN	Agent for the Protection of Nature
ARD	Associates in Rural Development
CARE	U.S. PVO (Private Voluntary Organization)
CI	Conservation International
CITES	Convention on International Trade in Endangered Species
CNRE	National Center for Environmental Research
COMODE	Malagasy NGO Council for Development and the Environment (Conseil Malagache des ONG pour le Developpement et L'Environnement)
COP	Chief of (Field) Party
CPSP	Country Program Strategy Plan (USAID)
CTP	Principle Technical Advisor (of a PVO in an ICDP)
DAI	Development Alternatives, Inc.
DEF	Department of Water and Forests
EAP	Environmental Action Plan
EE&C	Environmental Education and Communication
FMG	Malagasy Francs
GIS	Geographic Information System
GMU	Grant Management Unit
GRM	Government of the Republic of Madagascar
ICPD	Integrated Conservation and Development Project
IEC	Information, Education, and Communication
FP	Family Planning
GreenCOM	USAID Environmental Education and Communication Project
IMF	International Monetary Fund
KEPEM	Knowledge and Effective Policies for Environmental Management Project
LTTA	Long Term Technical Assistance
NGO	NonGovernmental Organization
NPA	NonProject Assistance
NRM	Natural Resource Management
NRO	Natural Resource Office (USAID)
ONE	National Environmental Office
PA	Protected Area
PACT	Private Agencies Cooperating Together
PCV	Peace Corps Volunteer
PDI	USAID/Madagascar Program and Development Office
PN	National Park
PZ	Protected Zone
PVO	(U.S. or International) Private Voluntary Organization
RNP	Ranomafana National Park

SAF-FJKM	Development Department, Malagasy Reformed Church
SAVEM	Sustainable Approaches for Viable Environmental Management Project
SOW	Scope Of Work (for this evaluation)
STTA	Short Term Technical Assistance
TA	Technical Assistance
TFAP	Tropical Forestry Action Plan
TR&D	Tropical Resources Development Institute
VITA	Volunteers in Technical Assistance
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific, and Cultural Organization
USAID	United States Agency for International Development
WWF	World Wildlife Fund (U.S. or International)

LEXICON

Animateur	Extension Agent
Dina	Malagasy term - common decision taken by all the community based on consultation on the issue at hand
Fihavanna	Malagasy term - friendship, relationship, reciprocity, solidarity
Fokolona	Malagasy term - the village community, descendants from a common ancestor, from the same village
Kabary	Malagasy term - A speech given by the King or head of the village to his Fokonolona members
Merina	The name of the ruling tribe - means "those from the highlands.' These people have the lightest skin and most Asiatic features of any Malagasy tribe. It was the Merina Kings who succeeded in uniting Madagascar under a single government and for that reason, the Merina capital, Antananarivo, now serves as the nation's capital. The Merina use a unique three-caste system largely based on skin tone: *adriana*, the nobles; *hova*, the commoners; and *andevo*, the workers.
Operator	Any Organization, private, public, or non-governmental, either domestic or international that implements an ICDP program coordinated by ANGAP
Ray Amandreny	Malagasy term - Respected People such as elders, the president, the members of parliament (M.P.s) or the King- they have power both from the people and from God
Savoka	Malagasy term - Secondary vegetation arising from natural recolonization of land which was cleared or farmed
Tana	Abbreviated name of the capital city, Antananarivo
Tavy	Malagasy term - Traditional slash-and-burn agriculture practiced on hillsides; also the land cleared by slash-and-burn agriculture
Fady	Malagasy term - A system of local taboos attributed to ancestors and aimed at keeping them as content as possible
Vintana	Malagasy term - Fate, which is by no means unalterable, and is most closely observed in coastal areas exposed to Islamic influence such as Antaimoro country along the south-east coast
Famadihana	Malagasy term - "Turning of the bones", also known as second burial, is primarily a Merina custom, but it has also been adopted by other tribes. The Merina hold their dead dear but not departed. Their ancestors, **the razana**, remain with the family after death and play as great a part in the family as when they were alive. The source of most **fady**, the ancestors are revered, consulted, placated and petitioned to bestow good fortune on the family.

THE 18 TRIBES OF MADAGASCAR

(from *Madagascar And the Comoros: Lonely Planet Travel Survival Kit,* Deanna Swaney and Robert Willox, 1994)

Even though the country shares one basic culture and language, officially, the Malagasy people are divided into 18 tribes, whose boundaries are based on old kingdoms rather than ethnic characteristics.

Although some groups, such as the Merina of the Antananarivo area, are predominately Indonesian in appearance and others, such as the Vezo of the south-east coast, clearly have close affinities with black African tribes of East Africa, most Malagasy people are of mixed ancestry. Madagascar, according to many, should not be considered African in anything but the geographical sense, although it does participate in African affairs to some extent as a member of the Organization of African Unity. The Malagasy, as Madagascar's people are known, are descended primarily from the Malay-Polynesian mariners who first settled the island approximately 1500 years ago. The ruling 'tribe' of Madagascar is the Merina, which is based in the central highlands, and there are 17 other officially recognized tribes, each with their own territory, customs and traditions. Madagascar is often referred to as the land that time forgot. It has magnificent beaches, spectacular landscapes, wildlife flora and cultures found nowhere else in the world- and it is still largely undiscovered by the outside world.

SECTION I
THE ENVIRONMENTAL ACTION PLAN (EAP)

A. Background and Introduction to the Assignment

Madagascar was one of the first countries that responded to the importance of its environment and the long-term management of its natural resources in the promotion of sustainable development. The Government of Madagascar has prepared a 15 year Environmental Action Plan (EAP), the first in the world. The Madagascar EAP is attempting to coordinate conservation and development, trying to satisfy short-term objectives, while finding ways to sustain its natural resources over the long term. There were over 150 Malagasy specialists from all fields that participated in preparing the EAP, and, in partnership with the World Bank as the lead donor, they joined forces with other donors and international organizations (USAID, Swiss Cooperation, UNDP, UNESCO, and WWF) to prepare an EAP for Madagascar. All of these donors and responsible members of the public and private community in Madagascar are making a major effort to solve the environmental problems in Madagascar. The EAP evolved from an earlier Tropical Forestry Action Plan (TFAP) that many felt was too narrow. Unfortunately, many people in the Third Republic (the present, newly formed government) do not have the experience of being involved in preparing and implementing the Environmental Action Plan of Madagascar.

Currently the EAP has six parts (the seventh is being added):

1. Protection and management of biodiversity
2. Improvement of the Standard of living
3. Cartography and GIS
4. Education and Training
5. Research
6. Policy and Environment
7. Forestry/GAF - this component is in the process of being added to the EAP

Two major issues arose (coordination and prioritization) to manage use of scarce resources and avoid duplication of efforts. In this context, USAID became the principal donor to the biodiversity component of the EAP, and USAID and its Natural Resource Office (NRO) are charged with conserving biodiversity in protected areas. A recent (June 1994) evaluation team of the World Bank concluded that the education and training component of the EAP was weak, and that communication and coordination were priority needs.

The USAID/Environment program in Madagascar is investing over $85 million over a five-year period. Its purpose is to provide support for biodiversity projects and environmental policy development. Moreover, it is one of the four pillars supporting the larger USAID Country Program Strategy (CPSP) and USAID/Washington's Global Strategy.

USAID/Madagascar's Country Program/Strategic Objectives			
Establish a competitive, pro-business climate.	Increase trade opportunity	Reduce natural resource depletion	Reduce total fertility

The CPSP objectives provide an integrated and broad based effort to protect natural resources while also fostering sustainable development. The specific goals of USAID's environment program flow from the Environmental Action Plan (EAP) to which USAID is the principle donor. The Natural Resource Office (NRO) is charged with three target objectives designed to improve natural resource management and to reach the NRO goal of reducing natural resource depletion in target areas. These targets include:

1. Conservation of biodiversity in Protected Areas;

2. Improvement of Management of Forest Resources; and

3. Growth of Income Opportunities for Resource Users.

These objectives and their corresponding activities are being implemented through SAVEM, KEPEM, and Debt-for-Nature Swap projects. A third project, TRADEM, is scheduled to be implemented in 1995. To date the achievements of the Mission and its partners are impressive and include, among others, the establishment of the National Association for the Management of Protected Ares (ANGAP), and the awarding of six Protected Areas Development Grants; far along in the process of establishing a National Environmental Endowment Fund; and revision of the Environmental Review Process. Each of the projects within the USAID/Madagascar's Environmental Portfolio has education and communication needs with SAVEM specifically mandated to provide a communication network to enhance understanding of biodiversity.

B. Consultancy Terms of Reference

This consultancy is part of the assessment activities of the USAID Environmental Education and Communication (EE&C) (GreenCOM) Project, whose purpose is to assist the USAID Natural Resources Office (NRO) to achieve its natural resource management goals through improved Environmental Education and Communication (EE&C) strategies.

The assignment, from June 3 to 27, 1994, was designed to provide an inventory of existing environmental education and communication activities and opportunities.

Specifically, the inventory was to include:

* major EE&C activities in relation to local education, extension and mass media systems;

* major EE&C opportunities including specific mention as to the feasibility of potential local, institutional and individual collaborators (public and private);

* major themes which will have potential to further USAID/Madagascar's Natural Resources Program objectives with special reference to indigenous cultural values and norms, and gender needs, which might be useful to address in EE&C activities:

* possible strategies and unifying themes linking the diverse activities of USAID/Madagascar in this field.

The task was not intended as a thorough evaluation but rather an assessment of EE&C efforts, the gaps, and a preliminary attempt at suggesting how the Mission's EE&C program could be enhanced. The Mission had two roles for GreenCOM: one was the assessment, the other was to assist the Mission to think through some specific activities it wanted and link these activities to an electronic bulletin board and Internet connections. The tasks for this assignment were primarily the former, although information was gathered for the GreenCOM staff member who followed.

C. Environmental Problems of Madagascar

The destruction of Madagascar's environment and resources is taking place rapidly. When humans first arrived in Madagascar about 2000 years ago, forests were abundant. The practice of Tavy (slash and burn) agriculture, extensive livestock rearing and a very high population growth rate (more than 3%) all contribute to an already fragile ecology and some of the world's highest erosion rates. Because of lack of conservation practices, as much as 200 tons of topsoil per hectare are being washed away annually, whereas maximum sustainable soil loss on good soils is 11 tons/ha/year. Madagascar's soils are highly susceptible to one of the world's most dramatic types of gully erosion known as "lavaka' and on the High Plateau, rates of loss may be up to 400 tons/ha/year. The resulting economic losses due to destruction of irrigation, road and other infrastructure, and siltation of hydroelectric dams and port facilities are enormous. Widespread, deliberate burning- not just tavy- is the cause of many problems cited above, and it is estimated that some 3-5 million hectares are burned each year. Some sources state that fully 30% of Madagascar's surface area is burned each year. Unless current trends are radically changed, little old growth forest will remain in 20-40 years. Continuing loss of forest cover, estimated at 200,000 ha/year, makes a real challenge to preserve remaining critical forest habitats. With the country's rapidly growing population of more than 12 million (double what it was at independence in 1960 and projected to double again by 2015) and with half of Madagascar's population under 15 and mostly poor, Madagascar's environmental problems are compounded. The USAID mission has an active population program and would like to make closer linkages between population and environment.

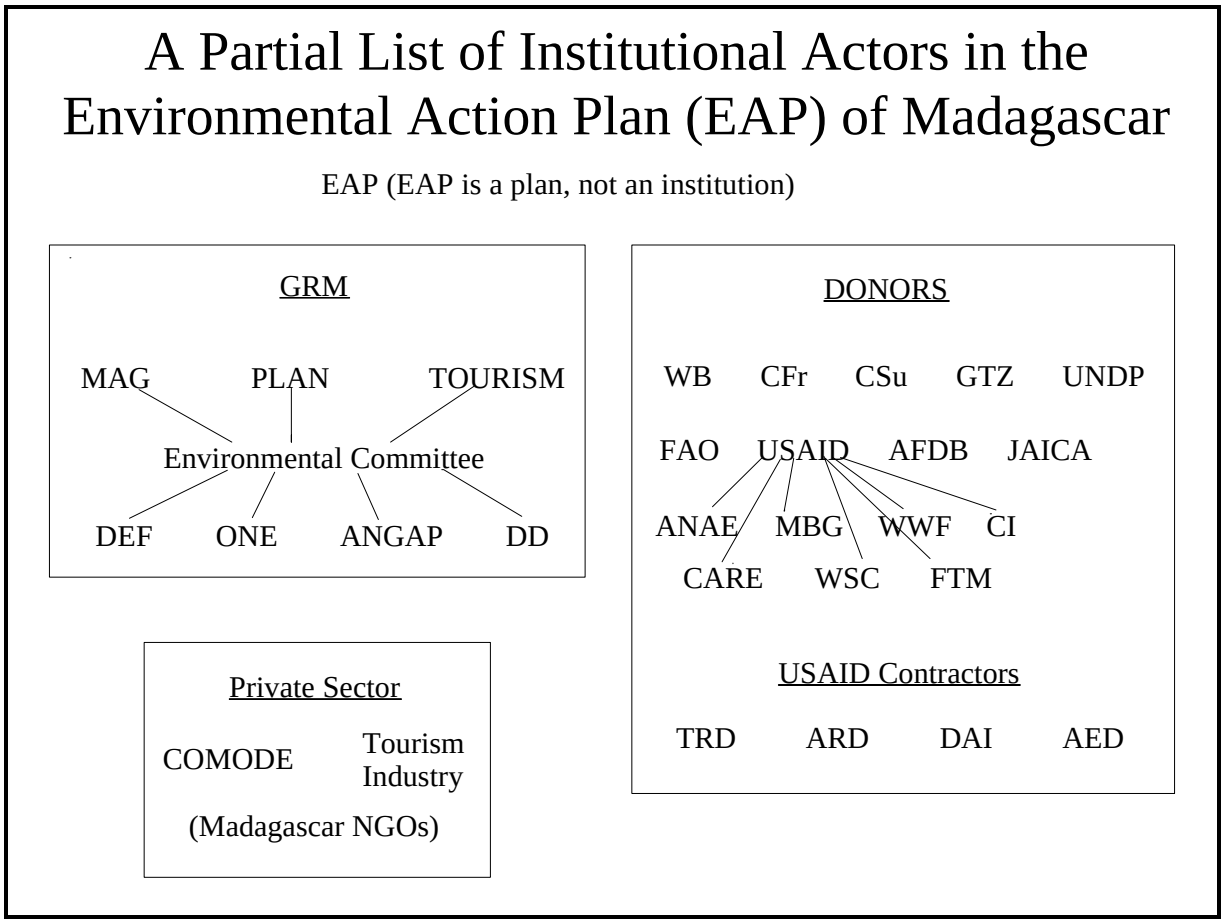
Madagascar's environmental problems are not only closely linked to problems of overpopulation but also to its economic woes. For countries like Madagascar whose economies are agriculturally based, the dwindling prices of exports during the 70's and 80's was disastrous. Sugar prices, one of Madagascar's major export earners, dropped nearly 40% between 1974 and 1984. The entire economic strategy had to be readjusted and austerity measures taken. Repayment of outstanding bills became increasingly difficult because the repayment of loans was based on anticipated returns from exports whose prices had fallen catastrophically. In an effort to meet financial obligations, Madagascar attempted to compensate for falling commodity prices by increasing production- the result being that forests were cleared and marginal areas brought into cultivation. Supply and

demand also played a role; as production increased, markets were flooded and the price per unit fell.

The cost to the environment of Madagascar has been staggering. Accelerated soil erosion, water shortages, siltation- in many regions the very basis of agricultural production was threatened- to mention nothing of the myriad species driven to extinction as their habitats were first nibbled, then fragmented, and finally swallowed up and disappeared. The cycle is horrific; damage to environment results in decreased productivity, so more forest is cleared, more hillsides are planted and on and on it goes. In the extreme, ecological collapse occurs- agricultural output per acre takes a nose dive, the economic situation plummets, leading to the overexploitation of marginal lands, more poverty, more overexploitation and so on.

Principally responsible for all environmental activities in Madagascar is the Ministry of Agriculture. With donor assistance, the Ministry created two agencies, the National Office of Environment (ONE) monitors, formulates, and coordinates policy; and the National Association for the Management of Protected Areas (ANGAP) monitors and manages protected areas. ONE is supported by the USAID/KEPEM project which provides technical assistance and is charged with coordinating all the efforts in the Environmental Action Plan of Madagascar. ANGAP is supported by the USAID/SAVEM project which provides TA through its contractual mechanisms to ANGAP. ANGAP's principal activity is to manage, support and coordinate the external PVOs that operate the protected areas. Discussion of the communication activities of ONE and ANGAP will be under the relevant projects in Section II, which discusses USAID support to Environmental Education and Communication (EE&C) activities.

A Partial List of Institutional Actors in the Environmental Action Plan (EAP) of Madagascar



ACRONYMS:

EAP	Environmental Action Plan
GRM	Government of Madagascar
MAG	Ministry of Agriculture
PLAN	Ministry of Plan
Tourisme	Ministry of Tourism
COMODE	Malagasy NGO Council for Development and the Environment
DEF	Department of Water and Forests
ONE	National Office of the Environment
ANGAP	National Association for the Management of Protected Areas
DD	Department de Domains (responsible for who gets title to land)
ANAE	National Association for Environmental Actions
FTM	Geographic Information Systems/mapping
WB	World Bank
CFr	French Cooperation
CSu	Swiss Cooperation
GTZ	AID- Federal Republic of Germany
UNDP	United Nations Development Agency
FAO	United Nations Food and Agricultural Organization
USAID	United States Agency for International Development
AFDB	African Development Bank
JAICA	Japanese Development Assistance
NGOs	Non-governmental Organizations
MBG	Missouri Botanical Garden
WWF	World Wildlife Fund
CI	Conservation International
CARE	U.S. PVO (Private Voluntary Organization)
TRD	Tropical Resources Development Institute
ARD	Associates for Rural Development

DAI	Development Alternatives, Inc.
AED	Academy for Educational Development

SECTION II
US-SUPPORTED PROJECTS AND ACTIVITIES

A. Methodology

The assessment was done primarily via extensive interviews with major players in the environment with appointments set up by USAID in Madagascar, and by previous contacts made in Washington, D.C., with Conservation International, the PVO/NGO NRMS project, USAID and the World Bank. Joint meetings with other teams such as the SAVEM evaluation team, a training assessment team looking at strategic training needs for the mission, Mitre Corporation (looking at electronic communications), and a communication team for ANGAP were part of the assessment process. Interviews were with NGOs, government and individuals. Selected site visits were made, but constraints in time and schedules with other people made it impossible to spend too much time in the field. However, field personnel visiting the Capital from Ranomafana were included.

In the scope of work one area the team did not look at was marine resources. The concentration was on forests because that is where USAID is putting its greatest efforts. Given the scale of forest destruction, it is expected that marine resources will also be affected as the entire watershed will be touched. USAID is considering a watershed approach which would necessarily bring in agriculture and marine resources as components of an integrated environmental program.

B. USAID-Supported Projects in EE&C

Project: SUSTAINABLE APPROACHES TO ENVIRONMENTAL MANAGEMENT (SAVEM)

Description:

The institutional contractor is TR&D, cooperative agreement is with PACT,and subcontractors are WWF, CARE, CI, VITA and Stoney Brook. PASA are USGS and Peace Corps. Duration of project is from 9/28/90 to 3/31/98.

The project objective of the SAVEM Project is to establish sustainable human and natural ecosystems in areas of Madagascar where biodiversity is threatened. The purpose is to identify and establish sustainable systems (including institutions, methods and behaviors) for the management of protected areas of Madagascar and their peripheral zones.

This purpose will have been entirely achieved if:

* various hypotheses concerning the management of sustainable, interactive development efforts in selected protected areas and their peripheral zones have been identified and been tested;

* Populations of the six peripheral zones are involved in sustainable use of resources;

* Public awareness of prospects for interactive management of protected areas and peripheral zones has increased.

Certain project components include: (1) the institutional development of the newly created National Association for the Management of Protected Areas (ANGAP) which has the mandate to coordinate implementation of government policy for management of protected areas and the development of peripheral zones; and (2) the awarding and management of Protected Areas Development Grants for joint, interactive management of development and conservation efforts in protected areas and their peripheral zones.

SAVEM has had some important successes in attempting to implement an innovative effort to conserve biodiversity centered on protecting forest habitat in protected areas. This is a long term effort that will require a 10 to 15 year commitment as demonstrated by Madagascar's 15 year Environmental Action Plan. During the initial first three years, SAVEM has concentrated on institutional development of ANGAP and the establishment of a viable framework for the design and strategy development of integrated conservation and development projects (ICDPs). Any field impact is not expected to be seen for at least two–three years after the initiation of field activities. Training is the first thing that all field practitioners ask for when they are asked to prioritize their needs. This need is dealt with in recommendation # 6 in the section on ANGAP.

Organization: **NATIONAL ASSOCIATION FOR THE MANAGEMENT OF PROTECTED AREAS (ANGAP)**

Description:

ANGAP is a parastatal organizaton and its membership is comprised of local NGOs, international NGOs and government personnel. ANGAP has a difficult and delicate mandate to support, coordinate, and manage the activities in the protected areas, and therefore of the operators of these areas. ANGAP does not have direct line authority and does not dictate to the operators. This is a problem because the majority of ANGAP staff are career civil servants with a top-down management style who are dealing with Western style, highly individualistic, PVOs. ANGAP, therefore, is a special hybrid. In actuality, the Department of Water and Forests has more influence over ANGAP than ANGAP's own board of directors.

ANGAP has approximately 32 employees, half of whom are professional. ANGAP is divided into four major departments: (1) Administration and Finance; (2) Communication and Training; (3) Monitoring, Planning and Evaluation (Department of Protected Areas Program); and (4) Information and "Valorization" of Biodiversity. This is the one department that has a national mandate to construct a biodiversity data bank, a socio-economic data bank and a GIS-based data bank.

The primary purpose of ANGAP is protection of biodiversity; there are 39 protected areas, 14 of which are, what is called, #1 priority (those areas with the greatest human pressure on them). All of these 14 areas have ICDP projects. The SAVEM project is implemented in 6 of these 14 areas,with each one operated by a different International PVO under the coordination of ANGAP. Some PVOs have national NGOs as local partners and others involve consortiums of PVOs. Regretfully, the team only had opportunity to look in depth at only a few—CARE, WWF, Stoneybrook. The team visited one protected area—Andasibe, managed by VITA. The operators were not available for interview at the time. Each PVO is responsible for a protected area, and EE&C activities vary considerably among them.

According to Roy Hagen, departing TA responsible for institutionalization of the ANGAP component, ANGAP has taken the lead in ecotourism. At the higher levels there is much overlap. For example, ONE and ANGAP both are working with the same implementing agencies. FTM and DD (charged with land titling program principally around the protected areas) were under the supervision of ONE. DD staff are primarily technical receiving additional technical support from FTM. Land tenure is a delicate social issue and evidence from the field suggests that DD activities have mixed results. Most of the operators are reluctant to involve DD in their protected areas. Recently, a World Bank supervisory mission stated in the presence of ONE, that ANGAP rather than ONE, should supervise FTM and DD; all present at the meeting agreed and this is where it now stands.

Mr. Hagen went on to say that most of the new government (The Third Republic) were not involved in the formulation of the EAP. The Second Republic was responsible for the formulation of the EAP, and Ministers, Deputies, and people at all levels of government today ask "Why should we be spending all this money on the environment?" It could well become a major political issue.

Despite the clear mandate to provide education and communication services, there is no budget line item for communication. ANGAP recently purchased a $30,000 video system, and they will be able to produce semi-professional videos compatible with a wide range of video systems, given appropriate training and an objective based on a larger EE&C vision.

Within ANGAP there is a communications division responsible to the Department of Human Resources. This office has overseen publication of four issues of Hanitriniala, the quarterly magazine for the *Aires Protegees* (Protected Areas). Other small pamphlets and posters have been started. ANGAP has been recognized for its efforts surrounding World Environment Day; in 1993, ANGAP sponsored the first national ecotourism conference, attended by more than 90 participants. ANGAP sponsors an annual meeting for all ICDP operators, national directors, technical advisors, and central operators. In addition to the video equipment ANGAP has recently purchased VITA's Packet Radio/Computer technology. Priority attention should be given to use of this technology as it comes on line.

A TRD-sponsored training session was held in communications in June 1994 for ANGAP staff and operators. A review of the training materials indicate that the workshop was oriented to internal communication (total quality management techniques were referred to) as well as corporate image-building. ANGAP's fund raising objectives concentrate its efforts in EE&C towards public relations to donors.

ANGAP focuses on communication among and between organizations working in protected areas, communication directed externally towards the public addressing the combined concerns of conservation and development, as well as strengthening the developing ecotourism trade.

Despite lack of significant resources, modest communications activities are carried out by the project and by ANGAP. There is anecdotal evidence that some impact on the public has occurred. However, with the absence of any organized strategy and plan for public information, education and communication, along with the appropriate resources and desire to find out more about the impact of SAVEM efforts on the public, there is little chance of achieving the overall goal of the project—protecting forest habitat in protected areas.

Unfortunately the team did not meet with either the head of ANGAP or the head of the Communications Office in the Human Resource Division. The team did meet with Mr. Rakotondrainibe, Assistant director of the Communications and Training Division at ANGAP. He was interested in being able to set up multi-media presentations for conferences ANGAP attends. Public relations work, business marketing for ANGAP to solicit funds for an endowment and internal communications were his interests. Participatory rural appraisal techniques and social marketing were not considered priorities.

Protected Areas Funded by USAID and Supported by ANGAP:

1. **MASOALA—**Masoala project is the largest stretch of continuous rainforest in Madagascar. It is not protected yet and CARE's LT goal is to preserve biodiversity in the Masoala peninsula, then give people access to the forests. The last goal is to institutionalize the process. CARE is the only operator that is not a conservation-based PVO; as primarily a

development organization, CARE will accent the community development side; the conservation aspect is focusing on pure biodiversity research to find out what areas are there to conserve.

The Masoala project is a ten year effort which aims to ensure the long-term health of the natural ecosystems of the Masoala Peninsula and of the Nosy Mange Be Special Reserve, as well as to conserve both biodiversity and the natural resources which are vital to the livelihood of the local population. Project activities consist of: (1) delimiting the protected area and buffer zones plus establishing developing ecologically and economically sustainable activities in Masoala buffer zones that provide alternative sources of revenue to local people and increase the value of intact forest; and (2) implementing improved agricultural methods to the peripheral zones to intensify the productivity of these lands. Through these activities, the project hopes to reduce the rate of slash and burn cultivation and the mining of natural resources by providing improved methods, alternative resources and diversified markets.

The project, in principle, is developing a system of effective monitoring of project impacts on biodiversity, ecological health, and local knowledge, attitudes, practices and economic welfare, plus a mechanism for utilizing the information to adapt management practices to achieve project goals. The project also encourages the existence of supportive local, national, and international institutions that will assist in the long-term conservation of Masoala.

The design phase for the Masoala project was undertaken by CARE during the period from August 1992 to May 1993. The operational proposal was reviewed and approved by the SAVEM Grants Committee in August 1993. The project is being implemented by a consortium comprised of CARE/International (lead) and the Wildlife Conservation Society.

2. **AMBER MOUNTAIN COMPLEX**—The re-design phase for the Amber Mountain Complex was undertaken by WWF and CARE between September 1992 and June 1993. The re-design was based largely on lessons learned from the initial project activities funded under a USAID Operational Program Grant to World Wildlife Fund. An evaluation of this initial grant in January 1992 revealed significant limitations, especially on the development side. With the assistance of CARE and Veterinaires Sans Frontieres (VSF) as new partners, these shortcomings were taken into consideration in the Phase II Operational proposal reviewed and approved by the SAVEM Grants Committee in July, 1993.

   The overall goal of the IDCP is to maintain natural ecosystems in northern Madagascar, and specifically in the complex of Amber Mountain. The objectives are to identify and implement conservation strategies for the Amber Mountain, sustainable development strategies and approaches for the local population in the peripheral zones, and actions that allow the creation of legislative and social structures necessary for viable development. The project is being implemented by a consortium comprised of WWF (lead), CARE, and VSF.

3. **ZAHAMENA**—The goal of Conservation Finance and Ecosystem Management for the Zahamena Integral Natural Reserve project is to provide a model for participatory long-term conservation of Madagascar's biological diversity in concert with the economic development of the local communities. The major accomplishments of the project will be to improve

conservation and community development at the Zahamena Reserve, and to establish a model of conservation finance that will sustain project efforts in the long-term.

Expected achievements will be to: (1) reduce forest destruction in and around Zahamena Reserve in east-central Madagascar; and (2) establish a system of conservation finance, including a local currency through a debt for nature swap, to ensure the long-term financial sustainability of project components. This operational proposal was reviewed and approved by the SAVEM Grants Committee in August 1993. The project is being implemented by a consortium comprised of Conservation International and a national NGO, SAF/FJKM.

4. **ANDASIBE - MANTADIA COMPLEX**—A project design phase for Andasibe was undertaken by VITA and its partners between December 1992 and December 1993. This phase revealed that there are social, cultural, political, economic, business, agricultural, infrastructural, land use, health as well as demographic factors impacting on the area's biodiversity.

A proposal for the operational phase addressing these problems was submitted by a consortium comprised of VITA (lead), SAF/FJKM, Tropical Forestry Management Trust, and Clark University's International Development Program in October 1993; a revised proposal was then submitted in December, 1993. The three year immediate goals of the IDCP's implementation are to stop gross forms of ecosystem degradation inside the protected area as well as the periphery zones and to launch activities supporting long-term conservation. The long-term goal of the project is to conserve the health, quality, and population levels of biodiversity resident in the Andasibe-Mantadia Protected Areas Complex as of 1994/1995.

To this end, IDCP will focus on: (1) the promotion and improvement of protected area management and administration activities that will enhance the ability of protected area personnel to protect biodiversity and to establish a positive rapport with local residents; (2) the introduction and support of sustainable agriculture and forest preservation techniques that will conserve the forest, stabilize soil, conserve water, decrease erosion, control weeds, and improve fertility and productivity of the forest; (3) development of alternative livelihood options through a program to support the area's private sector through provision of advisory services; and (4) the institutionalization of IDCP activities through extensive training of local staff, conservation education and community development.

Dr. Richard Ford of Clark University, specialist in PRA, has provided technical assistance to this protected area, as well as other areas in Madagascar. His work is innovative and interesting and seeks to improve community development by giving PRA techniques for planning, implementation, monitoring and evaluation into the hands of rural communities. In particular, the methodology for participatory monitoring and evaluation, in the form of a log book kept by communities, enables project partners (including community organizations) to establish base line data, specify project actions, and record project accomplishments. Particularly important in this approach is the follow-up in terms of community action plans, to initial PRA activities. This ensures that PRA is not a one-shot occurrence but an ongoing methodology.

5. **RANOMAFANA**—On May 31, 1991, the establishment of a 41,000 ha national park took place to protect rainforest habitat which is integrated with small-scale development projects in 28 surrounding villages.

The purpose of the Ranomafana National Park Project is to test the hypothesis that preservation of biological diversity and ecosystems of the newly created Ranomafana National Park can be advanced through a program linking conservation of the core park area with improved standards of living and alternative agricultural systems within the surrounding buffer zones. The project's purpose is intended to serve for the expected 15-year total life-of-project.

The initial three years of project activity (August 1990–December 1993) was funded by USAID/Madagascar through an Operational Program Grant (OPG) to Duke University in collaboration with North Carolina State University. This phase consisted mainly of studies, research, and initial rural and park development activities that set baselines against which project impact can be measured. It can be stated that Phase I was largely successful as a planning and research phase. Four of the five major components of the project/biodiversity, conservation, agriculture/rural development, and socio-economic analysis objectives were fulfilled, and an impressive array of outputs were produced.

The context of these protected area projects is Madagascar. Madagascar is the tenth poorest country in the world with an average per capita income of $208 a year. Eighty-five percent of the people are farmers and the population is increasing at a rate of 3.1% a year. Madagascar has lost 90% of its native vegetation. Most of this loss can be attributed to slash-and-burn agriculture. The preservation of the remaining forests is a priority not only to conserve the endemic flora and fauna, but to maintain the watershed for the rivers (Wright, 1993- baseline data from 1986).

Based on an interview with Dr. Patricia Wright, Chief of Party, Gabriel Razafinahatratia, head of education and conservation and Benjamin Andriaminaja, coordinator of Project Ranamafana, (the team was unable to visit Ranomafana and independently witness its successes) the complexity of an ICDP project became apparent. All the following elements had to be integrated and each of these initiatives required collaborating with a different ministry of government: health care, primary education, public awareness programs, university level research, biodiversity surveys and studies, programs for providing technical assistance in forestry, in tree nursery management, in agriculture and finally ecotourism. The Ranomafana area has a population of some 26,000 living in 165 villages with 26 schools amongst them. The protected area itself is vast, some 40,000 ha.

The education/communication program addresses three audiences with in-school students/teachers taking up 5% of program activities, programs addressing women 25% and programs addressing a general adult audience 55%. The programs themselves range from collaboration with the national Ministry of Education (Ranamafana is one of the areas where the new integrated primary school curricula is being tested) to promotion of women's status through functional literacy and rural libraries. Adult education involves establishing trust, as well as the recognition that alternative incomes from reliance on forest products, may be the only way to ensure the park's protection. As a consequence, education/animation staff engage

in income generation promotion activities, craft development and micro enterprise development.

Ranomafana receives assistance not just from USAID but from private foundations and other donors. Ministry of Population has provided them with funds to promote family planning, a task park operators find difficult to implement, not because of lack of demand, but because of lack of availability of contraceptives at government clinics and health posts in the area. The literacy project was funded with German assistance. The Liz Claiborne Foundation has provided operational funds and the park has just purchased a video camera with which they hope to do participatory needs assessments. In addition they hope to make videos about the park to show in the small environmental museum established at the main entrance to the park. This museum shows, for local visitors and tourists alike, the flora and fauna in the park. It is well frequented by local school groups. The museum owns a video receiver and VCR.

The Ranomafana staff hope to increase their use of participatory methodologies and to that end invited the participation of Cornell University, and Dr. Norman Uphoff in particular, to assist them. They will be engaging in people-to-people awareness raising, using villagers who have worked with the park for some time to motivate villagers in other areas. This tactic is pragmatically driven by the vastness of the area and the distance between the villages.

The needs at Ranomafana in terms of EE&C were expressed by the staff as a lack of training for themselves (one field staff member had received three months of training by WWF before joining the project), a lack of appropriate materials for the work in which they were engaging, and a suspicion that, with all the good will in the world, their program was not as systematic as they would have wished.

In speaking of the training received through WWF, the staff member said he felt the training and the materials for schools was too theoretical and that he had to substantially adapt it for local needs. He felt the park could use better signage and improved trails, and while the park itself has electricity, the surrounding villages do not, even though one of Madagascar's largest electrical supply dams is located near the park.

In addition to the above education activities, the project has physicians and ancillary medical staff who make routine, scheduled visits to villages to provide health services. The staff feel that it is the provision of these and other (agricultural assistance) services that has gained the confidence of the local population.

It has also had an unexpected negative byproduct. In ensuring that local, displaced people were not socially disrupted by the establishment of the protected area, the staff tried to provide them with services based on a needs assessment. With economic decline affecting Madagascar, the services provided by project staff are far better than government available services. This has resulted in in-migration by people's hoping to participate. This has led them to expand the buffer zone area. This may be one of the problems associated with a project taking on the responsibilities of the State.

6. **ANDOHAHELA**—The overall goal for the Andohahela Project is to maintain and protect the biodiversity within the Andohahela Reserve and adjacent classified forests and to promote the sustainable use of resources around these sites. During the pilot phase of the project, financed by WWF and USAID central funding, activities focused on the recruitment and training of Malagasy staff, identification and delimitation of the official boundaries of the reserve, and creation of an adequate infrastructure for the initiation of development and educational activities.

   The redesign of the Andohahela project is presently being undertaken by WWF based on the pilot project activities and the recommendations of an evaluation carried out in January 1992. The objectives of the re-design phase are: (1) to establish baseline data that will allow the identification of pressures on Andohahela and the classified forests and the means to reduce these pressures; (2) to verify the viability of the hypothesis that by improving the socio-economic well-being of the local population there will be a diminution on the pressure on the natural forests; (3) to establish strategies and approaches that respond to the pressures; and (4) to improve the participation of the local communities in the implementation of the project.

Analysis:

The needs of the SAVEM project in EE&C are multiple and complex. They are made more complex by the relationship that exists between the operating PVOs and ANGAP. At present each PVO is trying to address its EE&C needs independently of ANGAP. Only one, WWF, is seriously implementing an EE program, and while it provides support to the other operators in this field, it is minimal at best and does not systematically address their EE concerns. In addition, the lack of expert communication on the staff and amongst the TA provided by USAID has left EE&C less developed than other divisions within ANGAP.

The biggest problem faced by ANGAP in EE&C is the lack of a coherent strategy and vision. While it has been mandated to do EE&C, how that translates into operational terms and how it links up with the needs of the operators at the field level has not been sufficiently pursued. As a consequence, individual operators have pursued their own efforts. The team found no evaluation reports that monitored the quality of these ad hoc efforts and is unable to determine their success or failure. There is some consistency in the needs expressed by the operators. Most felt that their staff lacked training, most felt that they needed better materials, most felt that participatory techniques were not yet well understood but were a real need. ANGAP itself is interested in pursuing social marketing opportunities but is unclear about the difference between social marketing and marketing itself for the purpose of raising funds amongst donors.

Finally the lack of comprehension of what communication is, and how it can assist in furthering program goals is, at present, a real handicap.

ANGAP and contract personnel with whom the team met, were not cordial to consideration of other roles in EE&C functions. Business marketing in the sense of fund raising and image marketing for ANGAP (not social marketing) seems to be the primary concern. Capacity to carry out EE&C work is minimal, but training can help to fill that gap.

Recommendations:

1. ANGAP needs to formulate a national EE&C strategy and a plan based on that strategy. If ANGAP is to become a center of excellence it needs to develop a vision, shared by its partners, of what EE&C can do for the Madagascar environment program, look seriously at the resources it needs to accomplish the vision, and begin the planning process to operationalize it. This will systematize EE&C activities and make less random and more effective, the various activities ANGAP is currently engaged in. It will also point out the gaps and constraints faced by ANGAP in terms of personnel and budgetary resources.

   It is recommended that ANGAP head a retreat of all partners, which would include both project directors and EE&C staff, and host a vision workshop. In this workshop, each operator could outline its own vision related to its own activities and the sum would become ANGAPs vision. This is a necessary step since, at present, the various operators compete with each other and with ANGAP in communication. A representative from ONE should be invited so that the visions of the two agencies then do not become competitive but mutually reinforcing.

   Prior to establishing the vision workshop, ANGAP key personnel should make brief visits to countries with more mature EE&C programs, so that they can see for themselves, the powerful effects of sustained, systematic EE&C activities in behavior change and policy promotion. In addition ANGAP should encourage field visits between operator programs and staff to share new ideas, view common problems and generally make staff feel as if they have a common goal, the improvement of EE&C in Madagascar, and do not simply represent vested interests.

2. Individual operators need to develop their own visions and coherent strategies based on local needs and conditions. Only then can ANGAP provide them with the EE&C support they need to accomplish their goals. ANGAP/SAVEM should furnish expatriate technical assistance to the operators to assist them in the formulation of their own vision strategies.

3. The skill mix of the communication division at ANGAP needs to be rethought if they are seriously going to implement a communication program and not just take archival and publicity photos, shoot videos, and do public relations. ANGAP needs to hire and/or train process communication specialists, behavioral scientists (Roy Hagen's replacement on the TRD team is an anthropologist),education/extension specialists, and participatory specialists. In addition these staff need to become trainers of trainers so that their skills are transferred to the groups they coordinate and to avoid ANGAP becoming competitive as a deliverer of communication services with these field projects.

4. ANGAP needs expatriate technical assistance to accomplish its communication goals. In the early stages, this TA should be long-term supplemented by short-term subject-specific TA.

5. Money needs to be allocated to the line item in the budget for implementation of communication activities based on the operational plan produced by ANGAP and its partners.

6. ANGAP has a variety of training needs including social marketing, participatory methodologies, materials production, strategic planning and management of communication programs and campaigns. As much as possible, training should take place in locations where operators can do field research to support their communication learning activities.

7. ANGAP should be able to provide materials for promotion of ANGAP activities after training in communication (pre-testing material).

Project: KNOWLEDGE AND EFFECTIVE POLICIES FOR ENVIRONMENTAL MANAGEMENT (KEPEM)

Description:

The purpose of the KEPEM project is to create a policy and institutional framework of incentives and revenue generation and use to encourage sustainable natural resource management. The program's duration is May 1992–May 1997. It is a combination of non-project assistance (NPA) complemented by a project component. Associates in Rural Development (ARD) is the US contractor implementing the project under the DFM project. The project consists of four major components:

1. Developing the institutional capacity to implement the EAP, primarily through support to the National Office of the Environment (ONE), responsible for environmental policy formulation and coordination of EAP implementation.

2. Facilitating local natural resource management initiatives through modification of policies and legislation affecting local tenure and governance.

3. Enhancing natural resource revenue generation and use by rationalizing forest products pricing and investment.

4. Creating an operational National Endowment Fund to provide a continuous source of financing for environmental actions.

Analysis:

Spike Millington, Program Coordinator, was the primary source of information for the team. He stated that in a recent evaluation of the EAP, a major recommendation that emerged was that education and communication be accented and aimed at decision makers and the population in general. However, as with ANGAP, there is a funding gap in the education, training, animation and communication division of ONE. They have no resources to carry out their mandate.

From the perspective of many, including Spike Millington, lack of and poor communication is a major stumbling block for implementing the EAP. He says there is a beginning of a backlash towards environment because so much money is going into the environment at the perceived expense of other sectors. There is an urgent need to communicate what is being done in the environment and how environmental efforts contribute to economic growth and long-term development. Mr. Millington mentioned that there are currently many new government officials who were not involved in formulating the EAP, and this continues to be a problem. Efforts at integrating environment into other sectors is problematic since perception of the linkages between environment and these sectors is not clearly communicated to decision makers in those sectors.

Advocacy programs are fledgling. There is no systematic audience analysis and the result is that people do not feel that investing in the environment helps the economy; on the contrary, many feel such a heavy accent on the environment is helping erode the investment climate. Decision makers,

the middle class of Tana, and legislators are all potential target audiences, according to Mr. Metcalf, Resident Representative of UNDP.

In an interview with the Director of the Education, Training and Communication Division of ONE, Soamalala Rakotonaivo, it became apparent that her division is very small (she has no staff and no operating budget) and cannot possibly undertake the kind of advocacy and coordination required of this important Agency. It is unclear what specific actions in EE&C this agency has undertaken to date.

Given the recent finding of the World Bank evaluation team, that EE&C is the weakest part of the EAP, and given the importance of ONE in coordinating the environmental efforts of the EAP, it is surprising that the communication and training division is as weak as it is. Jerry Grosnick of ARD, one of the newly arrived contractors, felt that ONE genuinely needed help in communicating the importance of environmental efforts in the policy realm.

Communication can provide strong support to policy development and formulation by providing feedback mechanisms so that policymakers can take the public's temperature in enacting policy reform. Communication can assist in creating the climate either with policymakers or with the general public, in which policy reform can take place. Communication can assist in the development of materials so that information flow among and between key parties takes place smoothly—in fact, in many ways communication is indispensable to the process. When the EAP was first formulated, there was much pressure from external advocacy groups in its support. International communication activities heavily influenced policymakers in Madagascar. However, since that time, no internal constituency has developed to replace the international constituency. Lacking effort to maintain interest in environment and in the absence of real knowledge and information about the beneficial impacts on people and economies, a backlash is developing. Currently communication is strictly one-way (donor-to-government) and this issue needs to be addressed.

Recommendations:

1. ONE needs to develop a strategic plan to sell policy reform to targeted audiences. Based on long-term strategic objectives and short-term operational objectives, the plan will drive the EE&C activities.

2. ONE needs to demonstrate commitment to EE&C by staffing adequately the Division for Education and Communication, providing training to staff and providing an operational budget based on its long-term objectives.

3. ONE needs to develop a social marketing/PR plan to reach policymakers, decisionmakers, gatekeepers and others to ensure a favorable climate for policy reform. In order to do this, ONE needs to begin the process of acquiring social/behavioral science skills so that it can determine public perception.

Project: DEBT FOR NATURE SWAP (WORLD WILDLIFE FUND)

Description:

Project duration is September 1989–September 1995. The project essentially rests on the agreement between the buyer/contractor (WWF funded by USAID) and the Central Bank of Madagascar whereby the foreign currency debt is exchanged or converted for an equivalent sum in local currency which is, in turn, used for domestic environmental action. The debt can be purchased at market value, which in the case of Madagascar has been about 50% of face value. This means that a buyer with $1 million can buy $2 million worth of Malagasy debt.

Because of its serious economic problems, austerity measures had to be taken which had a serious impact on the Department of Water and Forests (DEF), the agency which supervises public lands. Budgets dwindled to a point where there was virtually no ongoing public awareness or environmental rehabilitation programs. Foresters were tied to their offices and their day-to-day activities were confined to signing permits, writing reports, and policing. Via the debt for nature approach, a new strategy was used whereby two additional bodies were created and funded, the APN (Nature Protection Agent) and the Village Forestry Committee (KASTI). The main reason for recruitment of APNs was the Herculean task of management of protected areas. With only 217 forestry agents trying to manage a country the size of Madagascar (600,000km2, about 40% larger than California, slightly larger than France), there was an acute manpower shortage. APNs have been assigned to more than 80 sites and in many areas are the only source of environmental information. There are APNs assigned to all six Provinces and 17 Circumscriptions (a division of a Province) in the country. APNs are recruited from the regions in which they serve which promotes integration of the APNs into local communities and assures that the APNs understand the local point of view on natural resource issues. APN training does not currently include communication.

Since project start up, 375 APNs have been recruited, trained, equipped and posted to more than 80 DEF sites; $2.5 million of Malagasy external debt has been purchased; APNs have worked with 375 village associations and 450 tree nurseries; and 637,057 trees have been planted. Teacher training programs are done locally and have been very well received. Subjects areas include forest law, forest ecology, brushfires, small projects, forest exploitation, and administrative manuals.

WWF stated that because good communication at all levels is essential to develop a system that is responsive to local needs, to transfer new ideas between resource consumers and managers, and to address questions raised in the field a quarterly bulletin was developed, Ny Rofia, which is distributed to all APNs and to AFs.

Analysis:

Communication in the Debt for Nature Program is important because the program is country wide with a large field presence. Training in PRA/communications for the APNs is lacking. The APNs are the key for successful communication at all levels and the key for a system responsive to local needs, responsive to questions raised in the field and to feedback so that ideas can flow from DEF to the field and from the field to DEF.

Recommendations:

1. Training in communication and PRA for APNs is essential to enhance system capability.

2. Field materials for APNs use with local communities should be produced.

3. Because of such a field presence, the APNs could be involved in social science research at the community level. Possibilities are endless but the option is attractive because as long as the Debt for Nature program is operative, support to do the work of the APNs is assured. Just one example might be to do assessment of impact at video clubs and/or churches.

4. Training the Department of Water and Forests to obtain grants directly from donors is underway. This is a sound way to help sustainability. To help the EE&C efforts, counseling on how to get funds for the APNs for EE&C projects is necessary.

5. In forming the joint Debt-for-Nature and Department of Water and Forest Committees to oversee budgets, line items for EE&C activities should be included.

Project: **TRADE IN BIODIVERSITY FOR ENVIRONMENTAL MANAGEMENT (TRADEM)**

Description:

A new project with a start-up date of 1995 ($10,000,000) will begin soon. The purpose of this project is to provide a base for further development of a control system for the utilization and management of flora and fauna exported from Madagascar, thereby enabling local populations to improve their livelihoods through non-destructive use of natural resources. Focusing target-level activities on the increase of income opportunities for resource users will result in better natural resource management and biodiversity conservation in and around targeted protected areas. The TRADEM project is marketing biodiversity products in a way to build sustainability. In Madagascar, as has already been said, population pressure is driving people to farm where they should not be farming. Slash and burn practices and raising of cattle add to the pressure put on the environment.

Recommendation:

An effort to work with this project in its education and communication needs from the start would help as this project is an important component of USAID's environmental efforts.

Organization: **PEACE CORPS**

Description/Analysis:

Although not directly USAID, Peace Corps is included in this section because of its present and especially its future involvement with USAID-funded ICDP projects. There are currently only eight PCVs (Peace Corps Volunteers), all teaching English as a second language, but 25 more PCVs are scheduled to arrive in August, 15 to work in the environment and eight in education. All the PCVs will be taught how to integrate environmental education into their activities. With funding from the SAVEM project, 15 PCVs will be working with the project and an additional 30 will be working with the project over the next three years. Peace Corps is accenting the importance of EE, has excellent EE materials and Therese Glowacki, an Assistant Director, has extensive experience in the environmental education field.

Recommendations:

1. Training PCVs working in the SAVEM project in PRA/communication techniques and linking them up to local counterparts would help the ICDP projects.

2. A real opportunity exists for Peace Corps to get several of their Volunteers involved in the construction of environmental education curricula at the National Primary School level. A request has already been denied for PCVs to work with this primary school effort; this decision should be revised.

Organization: **ACTIVITIES TO CONSTRUCT AN ELECTRONIC COMMUNICATION SYSTEM**

Description:

The electronic communications system essentially will have four functions: (1) e-mail messaging; (2) bulletin board; (3) on-line discussions, public and private; and (4) querying of on-line data bases to tap into different data bases.

USAID hopes to link its clients currently considered to be PVOs, staff at project sites and relevant government agencies to make information flow easier between USAID and its partners and among the partners themselves. Internal to the country using existing and/or improved telephone lines, the Mission is trying to link up its partners in Madagascar. USAID would also like to help link Madagascar to world wide institutions, libraries, data bases and agencies could be done by bypassing the communication system in Madagascar using satellites and portable communication technology developed during the Gulf War. The electronic bulletin Board with E-Mail capacity is anticipated to be functioning by the end of Summer, 1994. A team is already in Madagascar working on this activity. Another team has been recruited to begin the preliminary steps to get an Internet connection developed.

Analysis:

In support of environmental activities, USAID is trying to set up a system of electronic communication. When established, it will be highly useful to the Mission. Since the timelines are unclear at present and it is something the Mission is pursuing, once USAID has established the system, any EE&C effort should link up to it. Tim Jorgenson, information system manager for USAID, has been active in this effort.

One of the strengths of this system is that it will begin to develop a network of PVOs that can share information. The system can encourage a more cooperative and collaborative spirit between and amongst NGOs and hopefully, between and amongst national partners. It will effectively reduce the isolation of field posts and can provide a continuing education system for operators. Several fora can be offered using this system, the most obvious being Internet, a second for the transfer of files, reports and documents and the third can be a discussion database. Weekly electronic notes from the field can be posted on specific topics such as Enterprise Development in Community Forestry, PRAs in Rural Forestry, Community-private-sector linkages, Tenure Issues etc...Posted field notes can be stored and recovered for future reference. Entries can be indexed to key words; exchanges between users can be encouraged. The value of this system will be to review the string of ideas and observations in a systematic way and gather information for workshops and meetings.

Experienced readers and writers from around the world can participate in discussions, adding a technical assistance dimension at little cost, and expanding local horizons to activities and methodologies in other countries.

Organization: **THE AMERICAN CULTURAL CENTER (USIS)**

Description:

The American Cultural Center is currently involved in several activities with some funding support by USAID. There are many journalists who have recently been trained in the United States under a USAID-funded program. The Center will inaugurate a press room area for journalists in July, and USIS is already a focal point for many journalists in Antananarivo. The Association of Women Journalists and the Association of Libre Malagache have been meeting for several months in this soon-to-be inaugurated area. The press rooms are now a center of a more democratically minded, US trained cadre of journalists; there have been several successful workshops held and the press room has the potential to serve as a place where environmental, family planning and private enterprise messages and information could be disseminated through these same journalists. There are a number of dedicated journalists and artists who are socially conscious and want to do something to benefit their country. Ms. Marcia Bosshardt, Assistant to the Director at USIS, has a background in Public Health and is knowledgeable and a potential collaborator for EE&C activities. She feels that much is in place to do some effective social marketing via key journalists and artists who have already had successful experience in producing a family planning video through the APPROPOP project, a USAID family-planning effort. This video was seen and was apparently very well received (no formal evaluation was done). A group of journalists and artists from all over the country produced this video, and although it was successful, it was used only twice on national television. The month of June was actually UNICEF's month of the children, so it would have been an opportune time to use this video. The musicians and artists were given an opportunity to produce this family planning video, and they enjoyed producing it. Ms. Bosshardt also mentioned the enormous potential of video clubs which exist all over the country.

Analysis:

There is just the beginning of media analysis in Madagascar, and a lot of support is coming from USIS. A professor from Northern Michigan (Mark Poindexter) was arriving as the current GreenCOM team was leaving. Dr. Poindexter is going to begin work on helping develop the national radio sector. Training in polling—who is listening to what so they can sell advertisements—is among the duties he will perform. There is currently a complete lack of such data.

Recommendations:

1. There is a potential for fruitful collaboration between USAID EE&C efforts and ongoing activities at USIS, particularly in regard to potential use of the press room as a conduit for environmental messages along with messages on family planning. A report on journalism training in Madagascar states that, " We believe that all Malagasy publications should be encouraged to run regular news stories, features, *breves*, and opinion pieces written by experts about the causes of environmental degradation and about the impact on the individual lives of environmental devastation and overpopulation. Up to now, these subject areas have received so little attention by Malagasy journalists that there is an almost total lack of understanding of the seriousness of the problem on the part of the public. At the same time, there is a lack of appreciation on the part of the journalists of the tremendous richness and

potential interest to readers and audiences that such subjects offer" (Helmore and Wickware, p.9, 1994).

2. Due to her keen interest in and knowledge of EE&C, the potential to work with Ms. Bosshardt, the current Assistant to the Director of USIS (she will be in Madagascar for at least three more years) is a promising line of action.

3. Already existing videos like the one mentioned on family planning should be used more extensively, both on national television and on the country-wide video club network. Even though only three weeks were spent in Madagascar for this assignment, the existence and availability of two–three high quality videos (done in Malagache by a Care consultant) in environment were under utilized. Putting them on both the national television but also on the video club circuit would be a significant educational boost to public awareness.

Organization: **USAID MADAGASCAR MEDIA STUDY** (see annex)

Description and Analysis:

Mention must be made of a proposed media project that was not implemented due to lack of funds. However, the conceptualization and recognition of the paramount importance of the media is recognized, and any EE&C effort in the future could profit by trying to take a cross sectoral and integrated approach as was proposed in the MEDIA project. USAID proposed a Mass Education and Development Information Assistance (MEDIA) project to coordinate, encourage and oversee information, education and communication activities related to the CPSP objectives.

As an umbrella project, MEDIA was to cover a 5-year span to encourage and support broad civic education, formulation and discussion of ideas concerning free markets and policy changes, environmental and family planning messages, dialogue among policy makers and program implementors, and a more professional press. The project was to be primarily an IEC (Information, Education and Communication) project whose goals were to integrate different efforts to reach target populations with effective,educational messages. IEC activities in the family planning sector were to inform target populations on how, why and where to get family planning information. In the environmental sector, IEC activities were to address education or public opinion on environmental policy reform, promotion of sustainable alternative agriculture, ecotourism, biodiversity and other alternatives affecting environmental activities of USAID.

IEC activities were to be essential in the economic and business sectors of Madagascar by addressing marketing, advertising, the matching of buyers/sellers, economic policies, road and weather forecasts and banking policies. The mission is currently involved in IEC-related activities in family planning, civic education and free press. The MEDIA project was designed to supplement, coordinate, promote, develop, and implement IEC activities in the areas of population, economic growth, democracy and governance through coordinating with ongoing activities.

William Hammink, Supervisory Project Development Officer in the Office of Program Development Assessment (PDA), understands and supports IEC approaches in development. As Madagascar moves towards a market economy, increased information and communication are necessary to unleash the private sector. Mr. Carner, Director of USAID now in the process of leaving to take up a new post in Nicaragua, expressed regret at not being able to implement this MEDIA project.

Recommendation:

Any attempts in the EE&C domain will have to confront the issue of long term, cross sectoral strategic planning if conservation through development is to be sustainable. The MEDIA project was a bona fide attempt to do just that. Consulting with the Mission personnel involved in conceptualization of the project in any future efforts in Environmental Education and Communication would help reach more people with effective environmental messages.

SECTION III
INTERNATIONAL NONGOVERNMENTAL ORGANIZATIONS

Organization: WORLD WILDLIFE FUND (WWF)

Description:

World Wildlife Fund (WWF) has some 350 Malagasy employees and about 10 ex-patriates. Its main purpose is conservation/preservation of biological diversity; sustainable natural resource use; and reduction of wasteful consumption of resources. They currently have some 27 projects of which only two are directly advantageous to animals over people. The Director, Sheila O'Connor, when asked of lessons learned (she has been in Madagascar over 13 years), among others mentioned that we are looking for textbook recipes for ICDP projects and there simply aren't any. Also mentioned was her perception that we are repeating over again the same mistakes in trying to get participation from the communities. The communities still feel lack of ownership in many of our (not just WWF projects but environmental efforts in general) projects.

The WWF EE Program began in 1986 and is funded by a mix of donors. WWF International is the NGO in Madagascar. Its counterpart agency is the Ministry of Education with which it signed a formal agreement in 1989 to place EE themes within the formal system. To date there is no WWF Madagascar. Within WWF a Unite d'Education et Sensibilisation manages the EE&C activities. Its Director has recently been changed. The previous Director will assume the post of Director of the Communication Division as of July 1, 1994. The Division of Communication therefore has no current budget or activities. It is anticipated that its activities will be both Public Relations for WWF International, as well as public awareness and mobilization for the environment.

Formal System:

There are approximately 13,000 primary schools in Madagascar and some 700 secondary schools in which the gender split seems to be 52% boys and 42% girls in elementary school. WWF International works with 112 school districts in 19 sub regions. In addition they work with NGOs and GROs at the grass roots level.

The Unite d'Education et Sensibilisation is composed of 21 employees of which eight are considered to be technical. Their professional backgrounds vary from law to sociology. None has an EE-specific background although they have benefited from in-country training by WWF. Its 1992-1993 budget was approximately $30,000.00.

WWF works in close cooperation with Commissions for Education set up by the Ministry of Education composed of education and curriculum specialists. Under the auspices of WWF, 40 Training of Trainers workshops have been held for some 1600 primary school educators nationally. These are primarily the Technical Advisors for the regions, some school principals and other Regional educational specialists. In their turn these individuals have been training teachers in the region in EE. At the same time, WWF has prepared, with the Ministry of Education, a series of five teacher training materials for the different levels of primary education, and three series for primary students. (25,000

copies of each series was printed and distributed. Not all copies have been adequately distributed due to weakness of linkages in the distribution process but most public schools in the regional urban centers and in the areas where WWF operates have received the materials and they are in use. Evaluation of the program has been left to the Ministry of Education. No impact evaluations have been made, but it is assumed that since the material is integrated into the current Ministry of Education program, and is not considered supplementary, it will have a beneficial impact on attitudes of teachers and students. Some follow-up visits have been made by WWF staff themselves to ensure that the system is still functioning.

Twelve Pilot Primary School (Ecoles Pilotes) were selected by WWF to receive more intensive educational assistance. These include provision of an information center with a larger number of books, provision of teacher materials so that teachers can be trained to make their own audio-visuals with students, a non-school based program (such as visits to the Botanic Gardens, where WWF operates a Training and Information Center), and involvement of the PTA. At each school a demonstration garden is encouraged. The school visited by the consultant had 22 teachers (all female) and one principal (male) with 420 students on a rotational morning and afternoon basis (50/50 gender split). The school had a library students could visit during class hours. While comics were the most appreciated item in the library, *Vintsy* magazine and other books by WWF were also available (only two comic books have been produced in Madagascar, one by UNESCO, and one by a local NGO funded by WWF). Children are not permitted to take out the books or materials but parents and teachers may borrow them. At the three schools visited by the consultant the demonstration gardens were primarily nutritional gardens and few endemic species were in the gardens. The head of the PTA (male) also met with the consultant and indicated enthusiasm on the part of the parents for the EE programs and their impact. The most obvious impact and the one most appreciated was the intervention by WWF to obtain running water for the school. Teachers and PTA members attested to the attitudinal and behavior changes of children as a direct result of the school EE program. Indicators of change mentioned were, increased use of water to wash hands while at school (the average home does not have running water), and improved appearance (they dress more cleanly).

Activities at the secondary (high school) level began in 1992. Twenty schools were used for the initial needs assessments. Ten thousand copies of an awareness brochure for teachers were printed and 40 teachers in eight schools have received training. Six additional seminars have been given at the teacher training Colleges.

Future activities anticipated but not funded include continuing in-service education for current teachers, greater follow-up in the field, increased production in materials for schools and for outreach; outreach to private and religious schools; and formal integration of EE into the teacher training curriculum (Ecoles Normales).

Vintsy magazine:—Perhaps the best known activity of WWF is its production of a magazine called *Vintsy*. Initially produced as supplementary material for secondary school students, WWF determined that a larger audience might be interested, and it is now offered to a general readership. The magazine is supported by Swiss funding. The magazine is sold at 300FMG which covers about 25% of the real costs of production (approx. 2,000FMG). The magazine is sold in the streets and is made available to the schools. Children are encouraged to purchase their own individual annual subscription, however with the current poverty rates in Madagascar, this does not seem to be a realizable objective.

The magazine's content consists of stories, information, comic strips, games and jokes. It is expected to appeal to a general public and therefore something for everyone has been added in. Informal estimates are that it is the widest read document in the country.

WWF has had some difficulties with distribution outside of the major urban centers and large towns but feels that it is widely disseminated nonetheless. No systematic evaluation of this magazine has been done yet.

Training of NGOs—WWF, besides establishing its own educational program, has included, through ANGAP, other NGOs and operators in its EE training programs although no systematic support is offered to other operators in this regard and they are not utilized to become distributors of WWF materials.

Analysis:—While a great deal of activity has taken place under the aegis of WWF International, political reality has somewhat overtaken them. Under the new government, the status of the French language as the official medium of instruction for secondary education (replacing Malgache) means that the Ministry is in the process of producing new texts. These texts will themselves contain integrated environmental content. The secondary school curriculum is expected to be in place in 1996 while the primary school texts will be in place by the year 2000. WWF is not involved in the curriculum development. There is some indication that the Ministry feels that Environmental Education has played too large a role in the school system (it is well-funded) and that other equally important subjects have been neglected.

While a great deal of activity has taken place with the formal system in EE, there is a greater need for impact research and documentation. In addition, little out-of-school activities have yet to be initiated. Four schools (all private) have expressed interest in putting together school clubs and are being informally assisted by WWF. Using the name of the journal *Vintsy*, produced by WWF, these clubs are performing community service activities as well as student and parent education. Finally, there have been some complaints that the curriculum produced by WWF is heavily theoretical and other operators who use WWF materials have had to significantly alter them to adapt them to the practical realities of their regions. WWF does not provide specific practical training to teachers except through the Educational Centers, which are accessible to only a few teachers. (Source; Deputy Director, Education Division/WWF)

Nonformal System:

Center d'Education—WWF operates two centers for Education and the Environment. The first, based within the environs of the Botanic Gardens in Antananarivo at Tsimbazaza consists of a building with two large rooms. In one WWF receives groups of students and teachers during work week hours when it schedules lectures, video-tape showings and slide showings. Two permanent staff of the Center are responsible for these activities. At each Center a quarterly exhibit is held with different themes, sometimes running concurrently with competitions at the schools. The exhibit is held in a narrow hall in the Center. No reference materials or brochures are available for visitors either at the Botanic Gardens (managed by the Ministry of Universities) or at WWF. However WWF has produced some colorful posters which are displayed in these centers (and which have been made available to the schools). The posters are primarily of the flora and fauna of the region although one

series of handmade posters speaks to the relationship of man to the environment. A second room in the Center is devoted to a touch-and-feel room where students see models and stuffed animals and where some interactive educational activities take place. WWF staff have informally recognized the need to engage students actively in lectures and do so in an informal manner.

WWF is in the process of establishing a second Center in Fianarantsoa operating out of a building loaned to WWF by the Direction des Eaux et Forets. It is anticipate that the Ministry of Public Instruction will provide the necessary facilities to house this center for the long-term. Construction of this building is part of the future plan of WWF. Other such centers are also envisaged.

These Centers come close to being the only Interpretive Centers in Madagascar. A third such Center could be the Museum for the Environment established at Ranomofana, one of the protected areas. No handout materials are available at any center and there is no systematic exhibition area which qualifies to put the materials into context. That the Center serves a great need is indisputable. Over 11,500 people visited the Center during the school cycle from November to June. WWF does not disaggregate the data to determine the number of school children, teachers, girls/boys, university students etc... make up that number, although it could be done. The Centers are not open on weekends and space, at least in the capital, is insufficient for the amount of visitors they have at any one time.

In addition to the nonformal activities of the Center, it is also used as a locale for lectures and to train the regional trainers used in the formal system.

Under the aegis of ANGAP, WWF established CFESAV (a project to train and sensitize its fellow PVOs in methodologies for communication, training, education, awareness raising, motiation and extension in protected areas). To this end, they produced a booklet in 1993 (see annex). It is unclear to what extent other NGOs have implemented their ideas.

Other Informal Activities—WWF International hosts an annual Week for the Environment, a public awareness activity concentrating on the general public as well as the schools. During this time programs are aired on radio and TV, the press is solicited to write articles and competitions are held in the schools.

WWF also hosts a three day overnight/camping trip for selected urban youth to visit park sites and to see endemic species in their natural locations. These are very popular outings and are the only ones of its kind offered in Madagascar.

Analysis:—WWF's program to reach the informal system is still in its infancy. Some creative activities have been initiated but no systematic program exists to reach either the general public nor targeted groups within the public, other than teachers and students. Church groups, women's groups, youth groups such as the boy scouts have not yet been targeted. There has been little systematic attempt to work with the media.

There seems to be some unevenness in the delivery of their programs and this has affected quality. The school gardens are neither agricultural gardens from which children can learn improved agricultural techniques, or improved crops, nor are they environmental gardens which can teach

students environmental lessons. The materials available to students in the libraries at the pilot schools are minimal and do not seem able to hold student interest, with the exception of *Vintsy* which is a quarterly magazine.

One problem with the WWF program is that it is indeed a WWF program and is not implemented or executed through a national agency. The Education Centers are owned and operated by WWF. The magazine *Vintsy* is produced and owned by WWF, any materials that are produced are owned by WWF and thus there is no in-country institutionalization or capacity to continue any of these activities should WWF International pull out, and since it is not an indigenous organization, it is within the realm of possibility.

It is also evident from discussions with the staff of WWF that there is no real communication knowledge or capacity within the organization as it is set up. Conceptually, the staff are product-oriented and have little knowledge of the process or science of education or communication which is why success of the program is measured in numbers of magazines distributed rather than in learning taking place. This is not to belittle the significant achievements that have taken place to date but to point out gaps in capacity that need to be filled. Nor is the lack of communication process concepts unique to WWF. There seem to be no organizations in Madagascar that are using state-of the-art educational and communication processes to drive their informal and non-formal activities.

Recommendations:

1. WWF, as one of the few agencies involved in national EE&C programs, needs to upgrade its education and communication staff to get the skill mixes that will allow for program enhancement. Process skills, evaluation skills and social science support for their programs are necessary to ensure that the quality is not uneven and that desired impact is taking place. Training in interpretation, educational theory and methods needs to be reinforced.

2. Because all six of their ICDP projects (two are funded by USAID) have just added a communication component, training is needed in EE&C. WWF does a great deal of university student training in the ICDP projects and these students should be included in any training efforts. The director expressed that, overall, in the whole Environmental Action Plan (EAP), the education/communication component is weak. Training in EE&C seems to be universally acknowledged as a priority need, especially by those charged with various aspects of implementation.

3. WWF has expressed a need for institutional support to get national NGOs functional.

4. The EE Division can and should be more involved with impact evaluation that looks at the quality of their programs, the actual learning and attitude changes that might be taking place and document the experience, sharing results with other institutions.

Organization: CONSERVATION INTERNATIONAL

Description:

Conservation International's main purposes are conservation and setting up National NGOs including recruiting, training and staffing at the local level when necessary. There are some 15 people in the Tana office with the USAID ICDP project having four technical assistants. At the moment, CI's number one priority is to get an environmental education program funded at the university level. Other activities include assistance to the Department of Water and Forests, mapping all areas of forest cover and trying to prioritize what to do in these areas (this has been funded in the past by UNDP and may continue with GTZ monies) and working in protected areas with ICDP projects. CI as well as other PVOs complained about the lack of information sharing between PVOs. The willingness for information to flow is not strong among many institutions involved in the EAP. CI is also starting to produce videos and has shown a five–six minute video depicting the difficulties of a family migrating from a rural area to an urban setting. Eventually the family returns. The video has background music from a well known Malagasy musician; apparently, the reception of the story was a success but no formal evaluation was done.

Analysis:

Establishing environmental capacity at the tertiary level is important if Madagascar is ever to manage its own resources. NGO development is also an important activity particularly if the NGOs receive training in EE&C.

Recommendations:

1. There is a need for training in PRA/communication techniques in their projects.

2. Communication campaigns are a critical need because CI projects cannot spend money at the regional/central levels. CI has had more problems with regional politicians- they do not care about conservation/development activities. Regional deputies should be a target audience to reach.

3. Working with select departments at the university has been successful in the past and should be a strategy pursued for environmental education. The Sociology Division can be reinforced with technical assistance.

Organization: **CARE INTERNATIONAL**

Description:

CARE has a staff of 120 Malagasy, eight expatriates. It has a $2.5 million budget, half of which is an emergency program (distribution of food, sanitation and reconstruction) due to destruction resulting from recent cyclones. CARE sees itself playing a meaningful role in contributing to development programs in Madagascar. In agriculture, CARE seeks to fill a gap between research and extension; in the ICDP projects, to fill the gap between the central government and the field. Traditional CARE projects have a three–five year donor engagement with a specific activity, a specific output, and an implementation approach. In CARE Madagascar's case, activities can be broadened to include communication and institution building, according to the Director, Remko Vonk.

Mr. Vonk stated that as far as he is concerned, the most pressing need in Madagascar is for people to really understand what participatory techniques are all about, what happens to information flow when you use it, what happens to systems and institutions when these participatory techniques are implemented. The ICDP CARE is implementing with WWF uses participatory techniques, and the park at Amber mountain does have an Interpretive Center and a recently prepared attractive handout. Independent of USAID projects, CARE also uses participatory techniques in projects funded by other donors, primarily in agriculture.

In Mosoala, the project is slowly moving into information distribution. With the help of a South African expert on video production, Francoise Odendow, three videos were produced, all in local languages, although the third was done for an audience outside the project area in two languages, Malagasy and English:

1. a 20 minute video depicting the relationship between fishermen's activities and ecology that puts the whole peninsula in context;
2. an educational video of ecotourism for local people; and
3. a documentary for outside audiences.

From the Director's perspective, the environmental community has itself become a problem, with its lack of information-sharing, lack of transparency and authoritarian mode of work. Mr. Vonk expressed the need to have more support from local intellectuals from within the culture and from within the political structure.

CARE is doing a great deal to work with extension systems in agriculture. Agricultural extension in Madagascar, according to CARE's Director, does not function well at present; it has well- educated staff who are poorly motivated, have no means of transport, and whose facilities lack basic supports. Few materials are developed to assist extension agents and they are not trained in non-formal communication methods. Much agricultural extension is church-based, the strongest of which is the Lutheran Church.

CARE is currently working with extension agents with high yield varieties of potato, sweet potatoes and cassava focusing on the coastal area. This two year pilot program has been successful in terms of farmer participatory research. Because it is run through a parastatal called Fifanamor, the extension

functions well. This parastatal has in-vitro capacity, so plant/food material is brought in from abroad and multiplied. Fifanamor is run by Malagache, privatized and funded through donors (salaries are paid by donors but follow government salary scales). The plant/food material is taken right out to the farmers (Madagascar is too poor to carry out research itself) and the farmers try growing the material themselves.

Analysis:

CARE is one of the first nonconservation groups to implement an ICDP project and the difference in their modus operandi and that of other agencies is readily apparent. CARE does extensive work in agriculture, linking it to environment and social conditions, a methodology not as systematically followed by other PVOs. CARE's work is critical to the range of activities in Madagascar precisely because of its development approach and use of development technologies (information sharing, persuasion, introduction of new farming technologies) to bring about behavior change.

Recommendations:

1. Even though CARE is already implementing programs in a participatory manner, the CARE Director felt that the concept of participation was not fully understood in Madagascar and the environmental leadership needed training in its objectives and implementation.

2. Utilizing videos already produced on national television and in the video club circuit would be useful. Local reactions to these videos could be an input for policy in Tana.

3. Reaching decision makers in the urban areas should be pursued in order to more fully involve Malagasy people in the environmental dialogue.

4. As CARE networks with its fellow operators in SAVEM, sharing lessons learned with other operators who do not work as extensively with agricultural extension would be useful.

SECTION IV
INDIGENOUS/NATIONAL AND LOCAL NONGOVERNMENTAL ORGANIZATIONS

Organization: COMODE (Malagasy NGO Council for Development and the Environment)

Description:

COMODE is an association of local, Malagasy NGOs working directly or indirectly with the environment. It has seven full time employees and is located in Antananarivo with 24 member NGOs as partners. Originally begun through a meeting called by the USAID NGO/PVO/NRMS Project, with Dr. Michael Brown as team leader, it is slowly emerging as a possible, viable partner to the international agencies. WWF International and CARE were part of the original membership, but because they are not indigenous institutions they have resigned and now have adviser status. COMODE has only been fully operational since 1990 when it received government approval and registration. At the present time, financing to continue operations, is not assured, and is a main concern. COMODE NGOs have little formal activities with USAID and lack of time precluded an in-depth examination of this nascent organization.

COMODE produces a newsletter (Vahy) for its membership and for interested other parties (such as donors) as well as a magazine (Faribolana) produced three times a year. It has initiated efforts to train rural farmers and collaborated with the World Bank in producing the first urban environmental needs assessment, currently being analyzed.

While in Antananarivo, the team attended the ANJOMARA Environment and Development Fair sponsored by a newly formed NGO member of COMODE, Information, Developpement, Environnement, Encadrement (I.D.E.E.). The fair itself was exciting and well visited although the quality of the information in the booths was most uneven. The fair was without the support of most of the international PVO community partly because of short notice and partly because the PVO community viewed its primary purpose as fund raising for an individual NGO. Nevertheless, attendance and the very fact of the interest in the fair itself was impressive. There are a number of budding environment groups just starting in Madagascar and many had displays at the Fair.

Organization: **Centre d'Information et de documentation Scientific et Technique (CIDST)**

Description:

CIDST is an autonomous parastatal research and dissemination agency with over 80 employees, primarily scientists and technicians. There is only one social scientist on staff. CIDST assisted the government to do preliminary research leading up to the EAP, but has had little active involvement in environment since ANGAP was created. Government agencies as well as private firms solicit and pay for the Center's research skills.

The Center for Information and Scientific and Technical Documentation is directed by Mme. Juliette Ratsimandrava, daughter of an ex-President of Madagascar. The Director is a woman of education and connections, and she has an intuitive understanding of communication but little direct experience. Among the accomplishments of her agency are the formal research required to support Acts of government and to formal decision makers. CIDST has done work on plants and environmental phenomena and have reported them in the form of a brochure to Ministers and legislators. CIDST owns an off-set printing machine. CIDST has never engaged in social science research.

CIDST has two general missions: (1) Service of General Affairs; Accounting; Logistics; Personnel; Projects; and (2) Public Relations Services- Marketing; Press; Television; Radio; Information Systems: Diverse Media Events. Their efforts at present are limited to doing research on scientific issues and producing pamphlets and brochures for decision makers on these same issues so that they can make decisions improved by knowledge. Little actual media work has been done. CIDST has a potential place as a provider of technical documents and with training could support the environmental community by providing technical materials for specific groups such as the hotel industry, manufacturing, mining, lumber and others.

Analysis:

CIDST does not have any experience or present capacity for communication in the sense of EE&C, but it is well worth watching as a future collaborator in EE&C. USAID has been impressed with the Director and has decided to aid the center as one of their prime partners in the upcoming OPEN project, a project dealing with private enterprise and democracy.With Ms. Juliette Ratsimandrava at its helm, the center will continue to have vitality.

Recommendation:

CIDST can be nurtured to provide quality technical materials to a variety of audiences from industry to government in support of policy and program.

SECTION V
ENVIRONMENTAL EDUCATION AND COMMUNICATION IN MADAGASCAR

A. Formal System

Because of political changes, the Madagascar educational system is switching from one language format to another. The change is from the vernacular (Malagasy) to French. This necessitates redoing the entire textbook system. The Ministry Division responsible for curriculum development and research decided to formally integrate environmental concerns into the entire national primary system. According to the Director of the Division of Pedagogic Research (UERP), Mr. Louis Lai-Seng, the Division requested long-term TA from Peace Corps and the request was refused. By the start of school year 1996, the primary-level curricula will have already been established. These environmental materials to be integrated into the primary level will be developed and tested during the next two years.

While the Division of Unity in Pedagogic Research (UERP) is responsible for curriculum development, it is not responsible for teacher training, and the Director assumes that World Wildlife Fund (WWF) will continue to have input to teacher training even though the Director feels that teachers in those regions served by WWF are overly involved in environmental activities to the detriment of other equally important subjects. There is insufficient information to do an analysis, but to refer to WWF environmental activities in the formal education sector, refer to the section on WWF in Section II. Until this more recent initiative WWF was the principal player in EE in the formal system and continues to be a strong partner to the Ministry of Education.

There is a significant number of private schools, most of which are not reached by any system of communication. WWF is just initiating an out-of-school conservation club system and it is so small that only three schools (private schools) are members.

CURRENT STATE OF EDUCATION IN MADAGASCAR 1994			
GDP%	1960 GDP%	1990 GDP%	Change in%
GDP as percentage of average of industrial nations (north=100)	10%	7%	-3%
Mean years of schooling for Madagascar as percentage of the average in industrial nations (north=100)	22%	22%	0%

School Enrollment Rates*

Gross primary school enrollment Figures 1990	No figure
Secondary school enrollment rates	18%
Gross tertiary enrollment	3%

***** Their figures fail to reveal the most significant fact about Madagascar. Educational achievement for most students regardless of the number of years of schooling they complete is still low.

Distribution of Tertiary Students in Madagascar-1986

ARTS

All	Education	Social Science	Business
56	3	53	0

SCIENCE

All	Nat. Sci.	Medicine	Math	Agriculture	Other
44	17	16	11	0	0

LABOR FORCE AS PERCENTAGE OF GDP in Madagascar- 1990

AGRICULTURE	INDUSTRY	SERVICES
33	13	54

* In the industrial world in 1990, 40% of GDP is attributed to agriculture, 37% to industry, and 59% to services.(Source: Spector, 1994)

Analysis:

Although the team did not have the opportunity to visit the field to verify what is actually being done, this opportunity at the primary level should not be lost. Given the high percentage of youth in Madagascar and given the opportunity to deeply and positively influence young children during their primary school years, a logical strategy would be to educate young children in environment at the primary level. The Ministry of Education has its own facilities and distribution system for producing and disseminating texts, although visits to rural schools indicate that there is a significant dearth of such books in the schools. In addition, the Division does not yet have commitment from any donor to fund the reproduction of sufficient text books (25,000 in a first print run).

Recommendations:

1. This division would appreciate technical support in EE and does not seem to be antagonistic to expatriate TA as long as the Ministry retains control of the project

2. A companion environmental activities handbook that follows the integrated environmental curricular materials would give children the experience of applying something they learned in environment in a practical way and give teachers some practical tools to improve pedagogical techniques.

B. Nonformal System

The non-formal system in Madagascar is extensive and includes adult literacy programs, extension systems, women's associations, churches, scouts, the organized sector such as trade unions. Due to lack of time, only a few agencies and audiences were selected for priority attention by the Assessment team, based on recommendations from local experts and the USAID mission. Communication programs that are non-formal in nature are frequently interpersonal supported by backup materials such as videos, print materials such as posters and flip charts. The settings in which non-formal communication take place are not ad hoc as in informal, but relatively controlled.

1. Out of School Youth

Description:

If one looks at primary school enrollment rates of about 92%, secondary rates of enrollment at 18% and tertiary rates of enrollment at 3%, out of school youth become a large and important audience to reach (see Figures on previosu page). Half of the population of Madagascar is under 15, also pointing to the importance of youth, both in and out of school. The rates of primary school literacy is functionally much lower than 92% due to the fact that many Malagasy who have had a minimum amount of schooling fail to achieve literacy or revert to illiteracy from lack of use. Besides the literacy levels of these youth they are further characterized as being poor, and lacking access to information and resources.

Out-of-school youth can be further segmented to consider the differing needs of boys and girls. There is a tendency to think of out-of-school youth as just boys, but approximately half are girls. The behavior of girls and women has an impact on the environment and, as well, they are victims of environmental degradation.

There are two groups of out-of-school youth. There are those still residing in rural areas and those who have moved to urban areas which is increasingly becoming an environmental as well as social and economic and political problem. Programs to encourage youth to stay in rural areas need to concentrate on communicating improved and more efficient farming methodologies (highlighting the importance of supporting the agricultural extension worker) as well as providing information on alternative incomes. Programs targeted to urban youth need further research.

USAID should seriously consider mixing population messages with environmental messages, given the demographics in Madagascar. If the fertility rate continues, sustainable power of land and resources including forests will be rapidly exhausted.

Analysis:

While time was too short to adequately address the concerns of this target population there is evidence suggesting that video clubs and churches are two channels by which one can reach a large segment of this youth population.

Recommendation:

ANGAP should begin a targeted campaign to reach out of school youth, both in rural and urban areas. NGOs should consider the potential of organizing these youth in support of environmental initiatives.

2. **Churches**

Description:

Christianity is still a strong institution in Madagascar due to the large numbers of practicing believers. The churches do a great deal of social development and outreach activities which are currently not systematically linked to environment efforts. The Lutheran Church, which is heavily involved in agriculture extension work, does not yet focus on environmental communication. About 22% of the population is Protestant, concentrated in the highlands, and 28% Catholic- mainly around the coastal zones. About 47% follow traditional religions, and a further 3% Muslim community is concentrated in northern villages with strong Comorian influence.

3. **Gender Concerns**

Description:

As already referred to in this paper, there is a widespread feeling among donors that gender considerations are not important because Madagascar has historically had a matriarchal society. Discussion with local researchers and social scientists on gender issues,(Dr. Suzanne Ramamonjisoa, Madagascar representative to the 1995 Beijing Conference on Women; Dr. Juliette Ratsimandrava; Ms. Marcia Bosshardt, Assistant to the Director of USIS; and Dr. Irving Rosenthal, Chief of party for the evaluation team for the SAVEM project) all feel that this is a seriously erroneous assumption on the part of the donors. Documentation and anecdotal evidence collected by researchers indicate that women are systematically excluded from decision making both in traditional as well as modern society. In addition the pressures of modernization, urbanization, environmental degradation, and other pressures have all seriously impacted women in negative ways.

The Assessment team concluded that gender disparities must be taken into consideration in environmental education and communication efforts. Gender disparities are significant, particularly in decision making, ownership of resources, access to information and impact of natural resource degradation. In addition, ICDP intervention efforts impact differently according to gender, although there is little documentation because of the prevailing assumption that women's status and condition is much more egalitarian than in traditional African societies.

It is important to factor in gender concerns, particularly in policy formulation. At one protected area site (Andasibe) the team met the head of the Guides Association, who firmly stated that the local population understood the park was off-limits and did not venture into the protected area. The reason for this, he stated, was that a reforestation scheme planting fast-growing Eucalyptus species, had been established for some years outside the park which enabled women to access fuel wood easily. Had the alternative fuel woods not been available he was convinced that there would have been pressure to breach the protected areas.

Most new jobs in the ICDP projects go to men, which may put a burden on women to take up the slack in food production. Gender research in many countries shows that increased incomes for men do not necessarily extend to increased income for the family. Even if support goes to the family, the fact that the man or husband is not doing what he would otherwise do will have an impact on the woman. No research is being conducted to determine if, in fact, there is a differential impact on women as a result of environmental initiatives sponsored by donors.

4. **Tourists and Visitors to Parks and Interpretive Centers**

Description:

Very little material is available at parks to inform tourists and other visitors. No information specific to children has been developed. In one commercial butterfly/ lizard/crocodile farm near the capital, a UNESCO comic book on lemurs was available for sale. In general the signage is poor and trails rarely marked. At the park in Andasibe, closest to the capital Antananarivo, there is a large, new structure built with Japanese funds that sits at the entrance of the park. Intended as an interpretation center it is not yet operational. (See section on WWF activities for further information on WWF support to Interpretive Centers.)

C. Informal System

The informal communication systems typically use intermediary channels such as mass media to transmit messages. They include such techniques as social marketing and address general as well as specific audiences. The delivery of messages is generally less controlled by communication experts. For example while the timing of a radio spot can be precisely known, it is more difficult to determine with precision the numbers of people exposed to that spot. Proper behavioral research and social science research can significantly reduce the uncertainties inherent in large campaigns. Impact on those exposed can be quite precisely determined through multiple research methods.

The informal system in Madagascar includes the major mass media channels, as well as the agencies that produce the programming for those channels. At present there is no equivalent to the Gallup poll which can evaluate public response to specific issues, although the previous description of the journalism training supported by USIA and USAID indicates that potential exists.

1. **Advertising/Video Production Agencies**

Description:

There are only eight private advertisement agencies in Madagascar many operating at what could be called "artisanal" levels. No international advertising agencies currently operate in Madagascar. Horizons is the most prominent firm, and is owned by Herizo Razafimaheleo, Minister of Industry and Tourism. These agencies are underdeveloped and there is no research backup (no national polls taken, no audience research done by any of the stations, and no attempt at audience segmentation).

The state of communication research in Madagascar is anecdotal and very ad hoc. Ecotourism was not included in the scope of work for this assessment, although it does advertising, is important and the government is starting to recognize its potential. In a magazine monthly, Dans les Media Demain (June 6, 1994,p. 15), an article by Minister Razafimahaleo stated that the industrial and tourism sector at the end of this century will represent 50% of Madagascar's GNP. According to this article, in 1993 alone, 29 projects dealing with tourism were started, the bulk of which involved hotels and restaurants.

2. **Radio**

Description:

Radio National Malagache broadcasts on two frequencies, one in Malagache vernacular, Chaine I, and one in French language, Chaine II. Programs are produced in Antananarivo and broadcast to the provinces. While there are substations at the provincial capitals, they are poorly equipped and do not have the facilities to originate programming. Journalists at the "radio regionale" send regional information back to Tana to be incorporated into national programs aired from 10-11 a.m. each day. Madagascar has private sector radios of which seven are based in Tana, two at Tamatav, two at Finaratsoa and others in smaller markets. These have not yet been systematically used in smaller markets.

On the National network besides the one program produced for youth, the Ministry of Agriculture produces a daily rural development program which occasionally features environmental information and themes. Environmental themes are also occasionally covered as news, in the last Earth Day celebrations, such as speeches by prominent politicians and competitions in schools.

Non-environment programs include news, journal (a mix of information and interviews), and a daily soap opera. The radio station has an existing troupe which produces and acts dramas and soap operas. Public competitions are used to obtain scripts.

All radio stations, public and private, take advertisements that are generally quite reasonably priced. A 30 second spot time costs 40,000 FAG (approximately $13) and contracts can specify when the spots will be aired. Programming time is purchased in five minute segments and costs 70,000 FAG (about $25) per five minutes. The national public radio can also produce the spot or the Programming at an additional fee which is contracted separately with the producers. A 30 second spot, with original music, costs 12,000 FAG (about $3) while production costs for a five minute segment can be between 50-80,000 FAG ($16-30). Clients can purchase air time for dramas, publicity,etc.... Discounts of between 5% and 20% are available for volume purchases, such as a campaign, although a six-month limit is maintained on any campaign. Clients may choose not to use the services of an in-house producer and this must be negotiated in the contract in advance. Mr. Niry Ravelojana (tel: 230-50) is the head of the Sales department.

Prime time is just prior to or just after the three daily news reports, thus at 6.30 a.m., 12.30 p.m. and 6.00 p.m. Radio Malagache does not have a research department and does no audience analysis.

Other Radio Stations in Madagascar:

FM90 - Radio Korail—a privately owned station in Reunion that broadcasts entirely in French. This station has ambitions to become the number One station in Madagascar in terms of listenership. They are training and investing in their journalists and give their employees higher salaries, but it is not a Malagasy-run station.

FM92- Alliance Francaise

FM96- RFI (Radio France International)

FM99- Malagasy National—broadcast all over the country and is the most widely listened to station. The Government of Madagascar is selling radios far below market cost in an effort to encourage citizens to purchase them as a way of saturating the country with radio.

FM100- RTV station supported by a former head of state

FM101- National French-language station

FM106- RLI- Private, commercial station, a lot of music, most popular station in Tana now. Programming includes a verbal summary of the written press. There is little international coverage.

In addition to the above stations available in Antananarivo, there are a few privately owned mom and pop stations around the country with low frequency and local emphasis. Based generally in regional capitals, these stations rely on advertising for funding.

Analysis:

With costs as reasonable as they are, it is unusual that the station is as under-utilized as it is. It is possible that environmental agencies expect free air time, but it is not unusual, when planning a social marketing strategy, for projects to pay for air time and ensure that their spots or programs will be aired at the specific times they request. Capacity for quality programming is extremely limited given that most journalists in Madagascar learn on the job and move to the private sector once they receive more formal training. Some years ago WWF held in-country training for journalists in environmental matters for print journalists but none have been held recently and currently none of the journalists at National radio have received any training. The journalist responsible for environmental activities listed training as her first need.

3. **National Television**

Description:

There is a national television station (RTM), and personnel at the television station have a lot of flexibility in programming but their salaries are quite low. Television is watched by the urban population, but even in the urban areas it is estimated that the percentage watching national television is low; there have been no studies to verify and to make more precise the viewing habits of the Malgache. Major urban areas have coverage but TV sets are expensive.

Analysis:

Possibilities exist to work doing joint production of EE&C materials. The per diem for T.V. personnel is only $6-7/day, and there is a general lack of equipment including video tapes and cameras.

Recommendations:

1. Work with television, particularly in support of KEPEM objectives and SAVEM public awareness objectives.

2. Because broadcast TV reaches the urban elite, it is a prime medium to reach policy makers and is currently under-utilized.

4. **Video Clubs**

Description

The advent of video to Madagascar has had a profound effect on the entertainment habits, particularly of young urban and semi-urban populations. It has invaded even rural areas through electric generators. In almost every neighborhood are video clubs, which for a modest price per person (200-300FMG) show feature-length movies to local audiences. Preferred movies are action/adventure type movies but often preceding the movie will be a short videocassette of local popular music, or dance or other entertainment. In areas where

national television is also available the video clubs will show popular entertainment, also for a price. The recent showing of World Cup soccer matches had young people standing in line in early morning hours to obtain seats to games broadcast live. Operators of these clubs recorded the events off the air and then showed them several times to different audiences.

Analysis

Video clubs are immensely popular and Antananarivo now has only three cinema houses (down from 8) since their advent. Central distributorship make current movies available to proprietors of the video clubs even in rural areas. In a visit to the small town of Andasibe (population 7000) the team found there were three thriving video clubs. Their distribution system is quite functional. At present, the video clubs are not being used at all to promote environmental messages, but they could easily become a major channel of communication to the general public, especially out of school youth.

Recommendations

1. Develop a small project to focus on the video clubs. The project would examine the audience, and develop a series of short, single-subject videos to precede the feature presentation. Videos would be distributed through the current commercial distribution channels and needs to be investigated.

2. These local video houses would be a potential site to do social science research and formative research. Pre- and post- tests could be administered finding out what various local audiences feel about different issues and interventions pertaining to the environment. Feedback from local people on environmental policies could be obtained. Local perceptions of policies would enrich feedback loops and improve efforts in the environment.

5. **The Press**

Description:

Of the daily papers (all of them are private), three are bilingual, and the other five are primarily Malagasy. The private papers are:

1. Midi Madagascar: In operation since 1982 with a daily circulation of 20,000 papers. Advertising in Midi takes up 60%+ of its 12 pages. Recognized as neutral, it is a bilingual paper covering sports, culture and political events.
2. Madagascar Tribune: In existence since 1989, it has a daily circulation of 12,000 papers. It is bilingual with 15-20% advertising space,and is considered liberal with many opinion pieces.
3. Nouveau Journal de Madagascar: Around since 1992, bilingual, circulation of about 4.000, receives financial backing from former President Ratsiraka.
4. Maresaka; Published in Malagasy since 1953, circulation is 3,000.
5. Farimbona: Around since 1993, circulation 3,000.

6. Kitra: Around since 1992 as a daily; 80/20 Malgache/French, 5,000 circulation.
7. Telonohorefy: restarted in 1992, Malagasy, 3,000 circulation.

Weeklies and monthlies include DMD (Dans les media Demain), Mada Economie and Juerco.

There is ample possibility for use of the press, but further analysis is left to any follow up activities.

SECTION VI
SUMMARY OF ENVIRONMENTAL EDUCATION AND COMMUNICATION IN MADAGASCAR

A. Summary

The dynamics and realities of development in Madagascar have changed from the time when PVO operations first started and when the EAP itself was first outlined, and, therefore, implementation reality has to change. At one time, it was sufficient for PVOs interested in conservation to advocate a protected area concept of forest management. But economic decline, new political realities and population growth have all dramatically changed the situation. Now the paramount need is to expand the decision making dialogue to involve more people, empower more people, and inform more people. It is not an easy task for PVOs accustomed to linear decision making. It is not easy for stakeholders in the protected areas accustomed to top down decision making and dependency roles, nor is it easy for Madagascar's emerging leadership whose larger vision includes other priorities. Finally, it is not easy for donors and environmental professionals whose very success, in a sense, in achieving environmental goals, may mask the need to change implementation styles to conform to the new realities.

EE&C becomes the cross-cutting tool for engagement at all levels in a context where collaboration and consultation have not thrived.

Madagascar is suffering from three main trends;

1. Rapid environmental degradation—an ecological trend.

2. Rapid population growth—a demographic trend.

3. Rapid rise in debt—an economic trend.

These three trends are linked to each other synergistically, but there is a profound lack of understanding of how these trends are related and reinforce one another. The general public from grassroots communities in outlying, poor areas, to urban elite and decision makers have a lack of understanding of what the donors are doing in environment and why these efforts are vital for helping them live better lives. Current EE&C efforts in this context are minimal consisting of talking to people about the environment but not of hearing what these different groups of Malagasy are saying. The communication tends to be one way and it is not getting through in a productive way. It is not surprising that almost everyone interviewed stated that communication/education is the weakest link in the EAP and in their own projects.

Regional, private radio stations with low frequencies can be used to talk about local interests. Besides modern media, Madagascar has a rich tradition of cultural and folk media, humor and drama and a national history and language that could be tapped to reinforce communication messages. For example, one could look at loved and honored rulers from the past (there are stories about rulers

who set aside forests for preservation a long time ago in Madagascar). There are traditions about lemurs which are "fady". The concept means that they have been made sacred to the point where they are not hunted or eaten for food. Exploration of such stories would provide message content for reaching local populations and have potential relevance to environmental messages.

There are no trained communicators in-country (the closest to it are people trained in hardware use—videos and/or computers) and no trained agencies/institutions to implement complex EE&C efforts. Finally, communication models like social marketing, participatory communication, and sharing of useful information to the policy planning process were developed in democratic societies, not centrally planned societies such as Madagascar has experienced for more than a decade.

Current EE&C efforts are measured using quantitative results and very little attention is being paid to the quality, in terms of how much learning took place or what behavioral changes took place. There is a tendency to evaluate communication in terms of what activities were completed and when. Because of the almost complete lack of social science research to support EE&C efforts it is very difficult to measure impact and determine whether compliance to environmental policy is the result of regulation and enforcement (as in many centrally planned economies) or the genuine assumption of individual responsibility for personal actions that impact the environment. In the case of some park zones dependence on operator-provided rural development services can substitute for changes in behavior and prolong real understanding and assumption of responsibility.

The practice of EE&C in development and environmental programs can cover a wide range of applications supported by many years of social science research.

1. It encompasses activities known as social marketing, with sustained, systematic strategies to achieve very specific social objectives utilizing sets of tools developed by business marketers and further refined by social marketers to effect behavior change. Social marketing can support policy planing by targeting policy makers, or educate grassroots communities about new technologies that enhance their lives.

2. EE&C embraces participatory systems that empower local communities to assume responsibility for natural resource management through individual and collective behavior change, as well as the provision of information and capacity building.

3. A third communication activity sets the long-range attitudes of a generation by formally providing educational literacy through the school systems.

Small discrete activities have been attempted in Madagascar in 1 and 2 above. Most EE&C energy has concentrated on the latter.

B. Recommendations

A recommendation section follows each section in this report but certain large recommendations have been highlighted here.

With the vast gap that exists in EE&C in Madagascar any effort in any direction would be an improvement. however particular issues stand out as having more priority. They do require a change in orientation on the part of practitioners, however. First and foremost is the need to develop a stakeholder orientation as opposed to an environmental orientation. This sets the stage for the following recommendations.

1. **Training**

With the very real lack of EE&C process skills on the island, priority should be given to training personnel, both private and public sector, in the various skills needed to support such a large investment in the environment sector. The training can be intensive for practitioners of EE&C and orientating for decision makers.

- Training in EE&C should be provided for a variety of target audiences including decision makers and practitioners of environmental programs, whose understanding of what EE&C is, can be minimal. This group includes decision makers in the major PVOs, ANGAP, COMODE, ONE and MOE divisions.

- Long-term training supported by in-country training and visits to other, more mature programs in other countries (in EE&C) would allow Malagache environmental actors to see how communication can support their programs more fully and make them more sustainable in the long run.

- Local indigenous NGOs are little fostered by the current system. The principal responsibility for the implementation of environmental activities is in the hands of international PVOs. Nurturing national NGOs to specialize and provide advocacy support, social science support, media support would ensure that these skills remain in the country whenever the PVOs begin to address the issue of exiting Madagascar and allowing the government to manage its own resources.

2. **Use of Traditional Systems**

As has been expressed elsewhere Madagascar has a unique traditional decision making system which is largely untapped by current PVO activities. Tapping into this powerful and dynamic culture is a definitive step in the right direction for participation and ownership.

3. **Developing Systematic Targeted Campaigns Nationally**

- Because of recent political changes it is most important for newly emerging leadership to be reached through communication campaigns so that they can also support EE&C initiatives that are currently, donor-driven. Campaigns aimed at decision makers can assist in getting policy support as well as empower local leadership, transferring the onus of watchdog of the environment from donors to the national government.

- Besides the emerging leadership of Madagascar, large subsets of the population can be reached to create a national consciousness and eventually a constituency for environmental activities that supports policy formulation and program implementation. These audiences include the current efforts in the formal education systems but should be expanded to include church groups, out of school youth, women's groups, the organized sector and industry and the private sector. Diversifying the audience ensures that campaigns are targeted to real concerns and real needs. There is an abundance of technologies available from radio and TV to the ubiquitous video clubs. The video clubs in rural and urban areas are a potentially interesting resource that are not yet currently being used.

4. **EcoTourism**

While Madagascar is a country that aspires to eco-tourism and indeed receives many tourists each year, some of the facilities can be enhanced through the construction of interpretive centers, provision of informational materials, better signage in parks etc...The team recommends that expert TA be provided to assist in this activity.

5. **Participatory Schemes**

Participatory mechanisms are little understood in Madagascar by environmental leadership. Training in participation and establishment of participatory programs in the protected areas should help to reduce dependence on donor/operator-provided services and increase community and stakeholder involvement and understanding. Ranomafana has begun some activities in this field as has CARE.

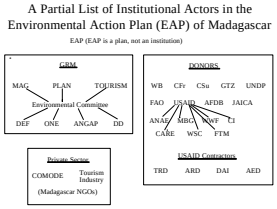
6. **Information Getting; Information Sharing**

Information sharing between and amongst environmental providers is limited at present. The establishment of an electronic linkage between the protected areas, sharing of information via Internet (as proposed by AID) can increase transparency and improve the quality of service delivery as lessons learned from one PVO are shared with others. More fora for delivery of papers in Madagascar can and should be encouraged and local institutions and researchers empowered to obtain social science information as a prerequisite for EE&C activities but also to enhance service delivery and provide the necessary feedback loops to monitor the stress on local populations of environmental initiatives. Communication helps to manage the complexity of differing perceptions amongst donors, operators, leaders, local communities, elites and disadvantaged minority groups supported by behavioral and social science research.

7. **Gender**

Gender issues should be studied to determine the differential impact on women and men of the far-reaching policy decisions that are being made in the environment; to determine the differential impact of implementation on women and men living in protected areas; to determine the real participation of women in decision making at all levels concerning the environment.

A Partial List of Institutional Actors in the Environmental Action Plan (EAP) of Madagascar



ANNEX A
IMPORTANCE OF TRADITIONAL MALAGASY SOCIETY
by Jean-Marc Andriamanantena

Jean-Marc Andriamanantena is a social scientist working in the USAID/Natural Resources Division in Antananarivo. He earned his Ph.D. in ethnography and did his work on traditional Malagasy culture at the University of Liepzeig (Germany).

Norman Uphoff's re-conceptualization of social science, which grew out of his experience with the Gal Oya project involving watershed/irrigation issues in Sri Lanka, can also be applied to Madagascar. Particularly applicable is Uphoff's concept of the potential release of social energy through ideas, ideals, and friendship that lead to inventiveness, commitment, and solidarity. No development efforts are possible without taking into consideration the social characteristics of the society where the action is taking place.

The Malagasy context:

The Malagasy society is composed of the **Fokonolona** (the village community) which can be defined as **descendants of a common ancestor, from the same village, and who have common tombs, the same beliefs, the same visions (PHILOSOPHY), and the same "land of the ancestors."** The Fokonolona is composed of the nuclear family. At the head of the Fokonolona, there is the Ray Amandreny, i.e. the respected person(s) such as the elders, the president of the Fokontany, the M.P.'s, the king...and so on. They have power from the people and God ("Zanahary").

In this Fokonolona community, the members participate in a **Dina**, which is a Malagasy term for a common decision taken and adopted by the entire community. All members must respect the Dina, if they do not, a sanction against the members can be applied.

Before this decision (Dina) is taken, all members discuss the objectives, the advantages, and the content of the Dina. The meetings may last several hours depending on the importance of the Dina. According to gender expert, Ms. Suzy Ramamonojisoa, women are traditionally not able to fully participate but can enter by sanction from the traditional authority.

The important value of the Malagasy society is called **"Fihavanana,"** which translated means, "Friendship" - "Relationship" - "Reciprocity" - "Solidarity." There is a Malagasy saying that, **"No**

trade is possible without the Fihavanana." This means no action for development is possible without the Fihavanana. This is the most important concept in the Malagasy society. The Fihavanana provides the community with the values of community welfare and respect for all individuals. The Fihavanana promotes good will which, when extended, benefits everyone. In this community, one respects himself as well as others. There is another Malagasy saying that reflects the value of the Fihavanana: **"It is better to lose ones wealth than to lose Fihavanana."** In the Fihavanana, there is solidarity. In the Fihavanana there exists what Uphoff calls "Both-And" reasoning. Every member takes responsibility in contributing to the welfare of the community by sharing his wealth.

Application of the Norman Uphoff point of view in the Malagasy context:

I personally think that all project activities must consider these Malagasy values and traditions which are firmly embedded in the Malagasy culture. The Malagasy community would be more willing to accept environmental education messages if the project implementors would consider the input of the Fokonolona, the native institution which can influence the members of the village, and which can sanction them if need be. A king of a village for example in Ranomafana can be an intermediate person between the project and the community. In his **Kabary** or speech to the Fokonolona members, he can explain the objective of the environmental education project, or if he is unable to do so, he can introduce the project staff to the Fokonolona. There is a kind of delegation of authority made by the king. If this authority is not transmitted to the project staff, the cooperation of the Fokonolona is not possible, for there is no trust. It is important that the Malagasy Government or foreign institutions observe certain norms when entering a village. For instance, before they start their project activities, they must at the very least introduce themselves to the Ray Amandreny (even though they have official authorization from the government). For instance, many projects are aimed at building women's organizations, at building an organization of young people, or at application of an environmental law to the village, and all of these examples require a general consensus from the Ray Amandreny.

A participatory project approach is the most effective when the Fokonolona can first express their opinions and ultimately decide on whether the project would be beneficial to the community. This means that the project implementors have to consider this Malagasy institution as their best possible link between the project and the people. The use of the Fokonolona should be considered as a tool for the social energization.

The Kabary or speech for the Fokonolona is organized by the Ray Amandreny in order to convey a message or in order to bring about a common decision. During the Kabary most of the members of the community are present, and projects should work with this traditional Malagasy institution in order to convey messages and consult with the local communities. Project goals can more easily be understood, discussed and possibly accepted through the Fokonolona.

In *Learning from Gal Oya; Possibilities for Participatory Development*, Uphoff highlights three potential sources of energy which are: ideas, ideals, and friendship. Friendship is the most important in Malagasy society. This is exemplified by a Malagasy saying: "The soul makes you a person." The soul is the way of thinking, the way of living among the Fokonolona members, the mind, the character, the heart. A person differs from an animal because of his soul, because of his mind. A

project must integrate itself into the Fokonolona, and understand that this is a SOUL. The Fokonolona would be willing to accept the project if the institution of the Fihavanana is respected. Social science must look for ways to take into consideration the social characteristics of the community in order to reach project goals.

ANNEX B
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